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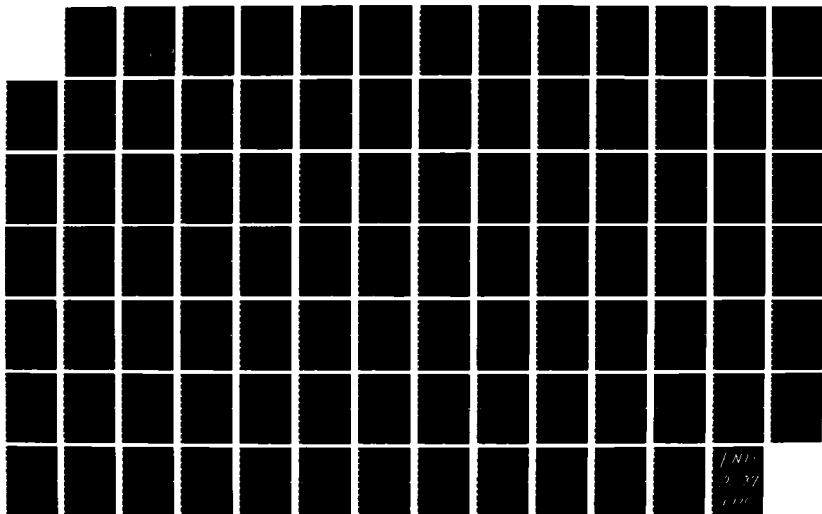
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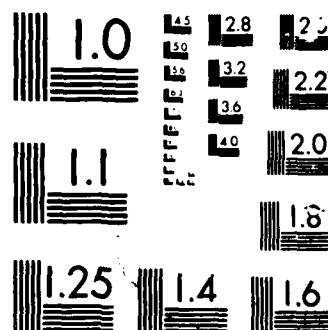
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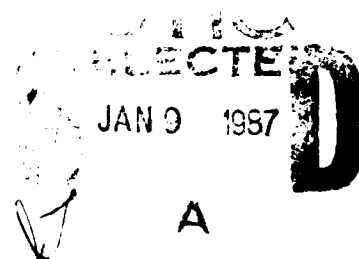




FORT IRWIN HISTORIC PRESERVATION PLAN

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THE MANAGEMENT PLAN / VOLUME ONE

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by Sally Ann Dean / April, 1986

Interagency Archeological Services Branch
Division of National Register Programs
National Park Service, Western Region
U.S. Department of the Interior

PRELIMINARY FINAL
THE MANAGEMENT PLAN
VOLUME ONE
FORT IRWIN HISTORIC PRESERVATION PLAN

National Training Center
Fort Irwin, San Bernardino County, California

by

Sally Ann Dean

Interagency Archeological Services Branch
Division of National Register Programs
National Park Service, Western Region
U.S. Department of the Interior

Funded by the National Training Center
Fort Irwin, California



April, 1986

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DEDICATION

In recognition of his inspiration, technical assistance and patience, this work is dedicated to Garland J. Gordon, former Chief, Interagency Archeological Services Branch, National Park Service, Western Region, who was involved in the multidisciplinary archeological project at Fort Irwin from its inception in 1980 to his untimely death in December, 1985.

FORT IRWIN HISTORIC PRESERVATION PLAN

VOLUME I - THE MANAGEMENT PLAN

VOLUME II - THE RESEARCH OVERVIEW

VOLUME III - APPENDICES A - D

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USERS GUIDE TO THE FIHPP

The Archeological and Historic Resources Management policies procedures and responsibilities of the National Training Center are defined in two documents: Department of Defense Directive of June 21, 1984, Number 4710.1 and AR 420-40 (Appendix B) which "...prescribes Army policy, procedure, and responsibilities for

- a. Carrying out the National Historic Preservation Act of 1966, as amended (NHPA), and the directives cited in Appendix B.
- b. Managing the historic preservation requirements through a Historic Preservation Plan (HPP).
- c. Following professional standards for Army preservation personnel and projects.
- d. Accomplishing the historic preservation program in a timely and cost-effective manner." (Chapter 1-1).

Following the guidance of AR 420-40, 2-13.e (1) (b) and (c), the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation (1983) have been utilized in the preparation of the FIHPP. In addition, the Comprehensive Planning Process was followed in the preparation of both the Research Overview and the Management Plan, making the FIHPP consistent with the State of California's current comprehensive historic preservation planning efforts as well as with Federal historic preservation planning processes.

The Advisory Council on Historic Preservation's Treatment of Archeological Properties - A Handbook (1980) was also used for guidance. The FIHPP procedures are consistent with Principles I-XIII and the recommendations of the Handbook.

The Fort Irwin Historic Preservation Plan is designed:

- 1) to provide an understanding of the historic preservation compliance process for military managers who are unfamiliar with and yet responsible for the management of cultural resources present on the installation,

2) to provide implementing procedures to be followed to ensure compliance with historic preservation legislation,

3) to provide technical guidance for researchers to ensure continuity within the Fort Irwin Archeological Project, and

4) to ensure that the highest quality research results are obtained from the expenditure of public funds, so that the NTC can manage its cultural resources in a wise and cost-effective manner which least impinges on its training mission.

To serve these ends, the FIHPP has been prepared in three volumes. Volume I, "The Management Plan," provides guidance and procedures for National Training Center managers while Volume II, "The Research Overview," provides the same direction for historic preservation specialists and research personnel. The FIHPP has been written and formatted in loose-leaf binders to facilitate required periodic updating and revision necessary to keep the Plan responsive to both research and management needs. Each chapter provides specific guidance, and a "Schedule for Review and Revision of the FIHPP," is provided (See Chapter IV). Volume III is comprised of Appendices which contain the statutes, regulations, directives, maps and the computerized site file sheets.

VOLUME I - THE MANAGEMENT PLAN

Chapter I presents an overview of pertinent Federal historic preservation laws, regulations and guidance documents as well as Department of Defense directives and regulations. Copies of these laws, regulations, guidance documents and directives are provided in Appendices A and B. Procedures for achieving compliance with the laws and for consultation with the compliance oversight agencies, State of California Office of Historic Preservation (SHPO) and the Advisory Council on Historic Preservation (ACHP), are discussed and provided.

In Chapter II, "Historic Preservation Goals," a series of five preservation goals is developed consistent with Federal laws and regulations and Standard II of the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation (Federal Register, September 29, 1983, 48:190, 44716-44740). Specific procedures to achieve each goal are presented as operable procedures to be undertaken by appropriate archeological (research) and/or NTC (management) personnel. Chapter II, thus, establishes the process

of historic preservation at Fort Irwin. An especially important aspect of the Chapter is the establishment of procedures for prioritization and integration of research and land-use needs to inform decision-making and treatment of archeological properties. A simplified flow chart of the historic preservation process is included.

Guidance to NTC Elements in identifying land-use priorities is provided in Chapter III, "Land-Use Priorities." The role of DEH in implementing the FIHPP is explained and information and liaison requirements of each NTC Element are specified. Copies of Standard Operating Procedures (SOP's) to be utilized by NTC Elements and personnel in conjunction with the FIHPP process and procedures are provided.

Chapter IV provides management procedures and guidance for the successful implementation of the FIHPP. Included in the Chapter are: a schedule for review and revision of the FIHPP, a schedule for review and procedures for the preparation of the Quarterly and Annual reports; procedures for scheduling of the monitoring program and the preparation of individual inspection and annual monitoring reports; procedures for the disposition of human remains; procedures for the preparation of research project priority estimates; and the distribution list for technical reports;

VOLUME II - THE RESEARCH OVERVIEW

"If planning for the preservation of historic properties is to have positive effects, it must begin before the identification of all significant properties has been completed. To make responsible decisions about historic properties, existing information must be used to the maximum extent and new information must be acquired as needed."

Secretary of the Interior's Standards
for Preservation Planning. Federal
Register, Volume 48, No. 190 p. 44716.

Integral to the concept of informed historic preservation planning is the establishment of regional historic contexts for the planning area. "The Research Overview," Volume II of the FIHPP, provides the prehistoric and historic contexts necessary to implement decision making and subsequent actions involving the identification, evaluation and treatment of cultural resources on Fort Irwin.

Chapter I presents a review of the available literature for Mojave Desert regional prehistory and identifies six chronological prehistoric cultural periods. The chapter

serves to organize what is already known and, perhaps more importantly, to identify what is not known, of Mojave Desert regional prehistory and provides the background for the development of the research perspectives.

In Chapter II the research perspectives are identified and the Subsistence Focus Model is presented. From the Model, predictions are made with respect to the settlement/subsistence patterns over time of human populations living on or near to what is today Fort Irwin. For each of the chronological periods identified in the preceding chapter, a series of propositions and hypotheses specific to cultural properties which may be present at the Fort is developed. The propositions and hypotheses specify the settlement patterns, site types and data categories of artifacts which must be studied in order to test the predictions made by the Subsistence Focus Model and to provide scientific information to fill identified data gaps in Mojave Desert prehistory.

"A Research Program for the Prehistoric Resources of Fort Irwin," Chapter III, bridges the gap between the archeological theories and hypotheses and the actual resources present on Fort Irwin. The six chronological periods are collapsed into three large periods - Early Times, Middle Times, and Late Times - to facilitate scientific investigation of archeological sites known or suspected to exist on the Fort. At the same time, geographical units based roughly on drainage basins are defined. These units, designated as Research/Management or R/M Areas, appear to contain cultural resources which differ from unit to unit; thus, their research and management needs will differ accordingly in kind and extent.

By combining the Early, Middle and Late Times research designs with the R/M Areas, specific research plans are developed and presented for survey (identification) and testing/evaluation on the Fort.

The historic resources of Fort Irwin are briefly examined in Chapter IV. Although extensive significant historic cultural resources have been identified on the Fort by survey, evaluation and a minimal amount of records research, funding has not been available to produce a Historic Research Overview and to develop the historic contexts necessary to management decision-making. Until the Historic Preservation Overview is compiled, the FIHPP cannot be considered complete.

In any research program of comparable size and complexity to the Fort Irwin Archeological Project, the necessity for

strict standards of procedural and methodological consistency is apparent. In the absence of such standards, comparability of results is difficult, at best, to impossible, at worst. In addition, the negative effect of non-standardized methodology is exacerbated by a continuing program, such as occurs at Fort Irwin and fairly regularly on other U.S. Army installations (Brieur 1981; Thomas 1981). Chapter 5 establishes the Standard Methodology to be followed in archeological research on the Fort. Strict adherence to the Standard Methodology will be required of all archeological researchers, whether staff, contractor, or ARPA permittees.

Appendices A, B and C deal respectively with the "Geologic Environment," "Analysis of Prehistoric Site Records" and "Recent Developments in Sampling Surveys." Information contained in the Appendices provides a background for survey/evaluation and mitigative recommendations contained in the "Overview." The data to be obtained in analyses of rat middens, basin hydrology, sedimentology and other related peripheral studies are essential to the successful investigation of Early, Middle and Late Times settlement/subsistence patterning. Appendices B and C provide the basic information for the reasoned approach upon which recommendations for survey and evaluation are made.

In summary, the "Research Overview" identifies both what is known and what is not known of Mojave Desert prehistory and in doing so develops the regional context essential to effective historic preservation planning. The Subsistence Focus Model provides the organizational concept for the formation of hypotheses concerning the Early, Middle and Late Times settlement/subsistence patterns. Further, the "Overview" identifies the site types and data categories which must be studied to test the hypotheses. Methods for this study are specified and recommendations are made for future survey/evaluation within Research/Management Areas. The rationale for many of the recommendations is contained in the Appendices.

In a very real sense, the "Research Overview" is the determinant of the Fort Irwin Archeological Project. It should be noted that the format of the "Overview" has been selected to enhance its primary role in the Historic Preservation Plan. As scientific information is obtained through survey/evaluation or mitigative studies, the pertinent portions of the Subsistence Focus Model and Early, Middle and Late Times Research Design and plans will be expanded or revised as necessary, as will the Research/Management Area recommendations. In this way, the "Research Overview" can be both responsible to scientific endeavor and responsive to the needs of the NTC.

VOLUME III - APPENDICES A - D

Appendices A through D provide copies of Federal laws and regulations, Department of Defense directives and regulations, copies of Maps 1, 2, 3 and 4 and the Fort Irwin Computerized Site File Code Sheets. In order, the maps identify: Map 1 - areas which have been surveyed (for archeological sites); Map 2 - all temporarily and long-term protected sites or areas and Off-Limits areas (restricted access); Map 3 - archeological site locations; and Map 4-Research/Management Areas. (Access to Map 3, the site location map, should be strictly controlled to deter illegal collection). The computerized Site File contains management-oriented data most useful to making informed decisions when time is limited. More complete information concerning archeological sites is available from the individual state "Archeological Site Record" if it is needed. The Computerized Site File provides quick access to general management data, however.

CHAPTER I - VOLUME I

INTRODUCTION

With the passage of the National Historic Preservation Act on October 15, 1966, all agencies of the Federal Government were enjoined to "...administer federally owned, administered, or controlled prehistoric and historic resources in a spirit of stewardship for the inspiration and benefit of present and future generations;..." (Section 2 (3); Public Law 89-665; 80-STAT.915; 16 U.S.G. 470, as amended). This mandate requires that agencies assume the primary managerial role in an often unfamiliar area of resource management - the preservation of historic resources. It was clear that land-managing agencies needed to acquire expertise in historic resource management if the letter and spirit of the law and its implementing regulations were to be met. It was less clear, however, how the new historic preservation responsibilities could be successfully integrated with the agencies' primary and mission programs.

For agencies whose missions had not involved resource management traditionally, the development, establishment and undertaking of a historic preservation program presented greater difficulties as the general resource management procedures were lacking.

In addition to procedural problems, agencies had to manage a field of expertise which was unfamiliar to them and which required the use of highly qualified historic preservation specialists - prehistoric archeologists, historic archeologists, historians, architectural historians, historical architects, paleoenvironmental specialists... - to assure compliance with the law and its implementing regulations. The advice and recommendations of the historic preservation specialists in regard to historic properties and their treatment quite often appeared to be overly costly in terms of time and dollars to the land managing agency, whose major concern was the performance of its primary mission. Agency heads, who were unfamiliar with historic preservation or cultural resource management, were responsible, nonetheless, for the management of cultural resources on lands under their control. This management responsibility required decisions affecting agency funding, scheduling and mission performance. Clearly, some method of planning was required to allow the manager to anticipate both the needs of the agency mission and the compliance requirements of the historic preservation laws and regulations. The planning instrument developed to provide the information and procedures needed by the agency managers at Fort Irwin is

the Fort Irwin Historic Preservation Plan or FIHPP. The purpose of the Plan is to integrate the Fort's historic preservation compliance requirements with the National Training Center mission.

The overall goal of the Plan is to assure that decisions required of the NTC managers are informed by responsible, professional historic preservation research planning and are coordinated with the NTC program under the guidance of implementing procedures.

The NTC training mission is unique and the repetitive nature of the training exercises results in degradation of the land surfaces within the training areas far in excess of that resulting from training exercises at other military installations. The rotation schedule of the training units produces the ground disturbing effects of nearly continual warfare within the training areas. Cultural resources located within trafficable portions of these areas are almost certain to be subjected to primary or secondary destructive impacts.

The impacts generated by the use of the Fort for Joint Training Exercises, National Guard and Reserve Component training must also be considered and the FIHPP contains procedures to be followed by these groups under the overall coordination of the NTC.

The FIHPP, therefore, provides procedures for identifying cultural resources, evaluating the resources' potential for providing scientific information and assuring the appropriate treatment of the resources in a manner consistent with the NTC mission and historic preservation compliance goals.

The cultural resources present on the Fort are varied and abundant. Important prehistoric archeological sites on what is now Fort Irwin were first discovered and described by professional archeologists in the early 20th century. Results of recent studies already undertaken by research personnel of the Fort Irwin Archeological Project not only substantiate the findings of the early scholars, but also have allowed archeologists to identify many areas of scientific research which may be addressed through the study of the Fort's cultural resources. Many of the archeological sites identified to date on Fort Irwin are unique in their information content. Other archeological sites may contain important scientific information, but may share this same information with other similar and more numerous sites. The FIHPP provides guidance for decision-making by identifying the important regional archeological research concerns and appropriate treatments for cultural resources known or

anticipated to occur on the Fort. The FIHPP identifies the most important archeological priorities and then provides procedures whereby their appropriate treatment is considered in concert with the NTC mission priorities assuring the coordination of agency and historic preservation goals.

OVERVIEW OF FEDERAL HISTORIC PRESERVATION LAWS, REGULATIONS AND GUIDANCE DOCUMENTS

The following brief summary was prepared by the Archeological Assistance Division, National Park Service, to provide a succinct overview of Federal historic preservation law. The laws and their implementing regulations are then discussed in regard to the specific applications to the FIHPP and procedures are provided to guide the conduct of the Fort Irwin Archeological Project. Copies of the laws, regulations and guidance documents are provided in Volume III, Appendix A.

LEGISLATIVE BACKGROUND OVERVIEW

Prior to World War II, the major Federal support for archaeology was through the Smithsonian Institution, the Tennessee Valley Authority, and the National Park Service. At the end of the war, in 1945, Congress began appropriating funds for the construction of numerous dams and water resource projects throughout the nation. American archeologists realized that the construction activities and the resulting reservoir impoundments would obliterate many potentially important archeological sites unless surveys and excavations were begun immediately.

To help organize the surveys, the National Park Service, the Smithsonian Institution, the Bureau of Reclamation, and the Corps of Engineers initiated the Interagency Archeological Salvage Program. Even though the National Park Service was the coordinating agency of the program from the beginning, over time more than fifty universities, colleges, and museums, as well as the Smithsonian Institution contributed personnel, facilities, and resources to assist with salvage operations in many water control projects.

The National Park Service's participation in the salvage program was based on the Antiquities Act of 1906 (Public Law 59-209) and the Historic Sites Act of 1935 (Public Law 74-292). The Antiquities Act made the Secretary of the Interior

responsible for protecting prehistoric and historic ruins, monuments, and objects on Federal lands, a duty he delegated to the Director of the National Park Service. The Historic Sites Act empowered the Secretary of the Interior, through the National Park Service, to carry out a new national policy of preserving historic sites, buildings, and objects of national significance for public use. It also authorized the Service to conduct surveys, and secure and preserve data on historic sites, publish studies, and otherwise encourage the preservation of historic properties on non-Federal lands.

With the passage of the Reservoir Salvage Act (Public Law 86-523) in 1960, the Secretary of the Interior received the added responsibility of preserving archeological data that might be lost specifically through dam and reservoir construction. The Archeological and Historic Preservation Act of 1974 (Public Law 93-291) extended application of the Reservoir Salvage Act to include the preservation of scientific, prehistoric, historic and archeological data in all Federal or Federally assisted or licensed construction projects such as pipeline or sewer construction, power transmissions facility development, airport construction, and so forth.

The 1974 legislation also made the Secretary of the Interior accountable for ensuring a relatively uniform Federal data recovery program. The law requires all Federal agencies to seek future appropriations, obligate available monies, or reprogram existing funds for recovery, protection, and preservation activities. They can also transfer a maximum of one percent of the total amount for each project to the Secretary of the Interior.

The Archaeological Resources Protection Act of 1979 supplemented the 1906 Antiquities Act. It set forth permit procedures for Federal land managers to follow in archeological work on public and Indian lands and established severe penalties for violations of the Act. The legislation also encouraged cooperation among professional and amateur archeologists and the Federal government, and created a major role for Indian tribes in controlling archeological resources on their lands.

One of the most important historic preservation laws is the National Historic Preservation Act of 1966 (Public Law 89-665), which calls for an expanded National Register of Historic Places to include districts, sites, buildings, structures, and objects significant in American history, architecture, archeology, engineering, and culture. It broadened Federal historic preservation policy by encouraging State and local governments as well as private individuals to preserve archeological or historic remains of national, State, or local significance.

Section 106 of the National Historic Preservation Act is especially relevant to American archeology. It requires that all prehistoric and historic properties listed or eligible for listing in the National Register be considered before funding is approved or any license is issued, whichever the case may be, on any project that might damage or destroy such cultural resources. No Federal project affecting a National Register property may proceed until the President's Advisory Council on Historic Preservation, also established by the 1966 Act, has an opportunity to comment on it.

The National Environmental Policy Act of 1969 (Public Law 91-190) is also significant to Federal involvement in American archeology. According to Title 1, Section 102(2)(c), Federal agencies are to prepare an environmental impact statement for every Federal action of any consequence affecting the quality of the human environment.

In May 1971, Executive Order 11593 was issued as a complement to the National Environment Policy Act. It directs Federal agencies to assume a leadership role in preservation by surveying and nominating to the National Register all significant properties within their jurisdiction, and by asking the Secretary of the Interior to determine whether any property in the environmental impact area of their actions is eligible for inclusion in the National Register. Moreover, the Secretary of the Interior is to develop and disseminate to Federal, State, and local governmental units information on methods and techniques for preserving, restoring, stabilizing, or maintaining historic properties. The Federal Government's lead role in protecting archeological and other cultural resources was

reaffirmed in the 1980 Amendments to the National Historic Preservation Act. They codified the portion of Executive Order 11593 that required Federal agencies to locate, inventory, and nominate all significant historic properties to the National Register. Also, they allowed agencies to spend more than one percent of project funds for archeological data recovery if they received prior permission from the Secretary of the Interior, and to use regular program funds for preservation activities authorized by the Act.

Clearly, throughout all the legislation described, Congress has intended that Federal agencies fulfill their legal responsibilities prior to impacting archeological and cultural resources. The processes required provide ample opportunity to explore and support the potential for "preservation in place" and to determine whether archeological excavation is necessary. They also allow time for maximum professional review of data recovery plans should an archeological investigation be conducted. Thus, Federal agencies cannot apply Public Law 93-291, which calls for the recovery of important archeological data, until after they identify cultural resources threatened by their projects or policies and conclude that preservation is neither prudent nor feasible (Archeological Assistance Program, National Park Service, WASO n.d.).

**SPECIFIC RELEVANT REQUIREMENTS OF THE PRECEDING
PRESERVATION LAWS AND PROCEDURES FOR APPLICATION**

The specific aspects of the preceding laws and regulations relevant to Fort Irwin are provided with procedures for their application to satisfy cultural resource compliance requirements.

ANTIQUITIES ACT OF 1906 (Public Law 59-209)

Section 1 of the Act provides for fines and/or imprisonment for the appropriation, excavation, injury or destruction of paleontological resources without permission of the Secretary of the department having jurisdiction over the lands. When a paleontological resource is discovered, the site should be recorded and the location noted on appropriate maps.

Sections 3 and 4 of the Act provide the authorization under which permits for the study and recovery of paleontological resources are issued.

The implementing Uniform Rules and Regulations (43 CFR Part 3) prescribe the permitting procedure under the Act. Permits are required of all qualified researchers who wish to collect paleontological remains for the purposes of scientific study. Permits are not required if the researcher is working under contract to the NTC; however, the NTC must obtain and document the same information from the researcher as is required for a permit (See "Procedures" below).

The scientific study of paleontological remains by qualified research specialists should be encouraged, whenever possible, and coordination with NTC programs provided to assure the long-term preservation or recovery of these resources if they cannot be protected from damage or destruction.

To date, three paleontological sites have been identified and recorded on Fort Irwin and it is probable that more paleontological resources are present on the Fort (Abbott, 1980; Reynolds, p.c. 1985).

The San Bernardino County Museum maintains a paleontological locality file for known sites in San Bernardino County and the surrounding region. The Museum requests that they or another appropriate institution be contacted immediately upon discovery of a paleontological resource so that the site can be recorded and evaluated for significance and sensitivity and the data permanently curated at the Museum.

Procedures for Recording Paleontological Resources

1. Do not disturb or collect paleontological specimens.
2. Fill in the following items on the Paleontological Locality record sheet (See Appendix A for reproduceable form).
 - a. Agency number
 - b. Map Reference
 - c. UTM Grid
 - d. County, State
 - e. Location
 - f. Specimens observed, Disposition
 - g. Ownership
 - h. Recorded by
3. Depending upon the likelihood of disturbance or destruction of the resource, report the discovery by telephone to:

Curator, Earth Sciences
San Bernardino County Museum
(714) 792-1334 and 825-4825

or by letter, with a copy of the Paleontological Locality record sheet, to:

Curator, Earth Sciences
San Bernardino County Museum
2024 Orange Tree Lane
Redlands, CA. 92373

Procedures for Issuing Permits for the Collection of Paleontological Remains

(DOD will issue permits. Specific procedures to be added to final Plan.)

ARCHEOLOGICAL RECOVERY ACT (1960) as amended; RESERVOIR SALVAGE ACT (Public Law 86-253); THE ARCHEOLOGICAL AND HISTORIC PRESERVATION ACT OF 1974 (Public Law 93-291) and (Public Law 96-625).

Sections 2 and 3 of the Act require Federal agencies to notify the Secretary of the Interior, in writing, when they find or are notified that an Agency project or program may cause irreparable loss or destruction of significant data. The term "data" is defined as scientific (including paleontological and other types of information which contribute to the understanding of archeology), prehistorical, historical and archeological data. (See "Procedures" below for information to be included in the written secretarial notification).

If there is no urgency factor and the discovery of unanticipated data is not involved, the Secretary will determine the significance of the data in accordance with the criteria in 36 CFR 60.4 (Determination of Eligibility for the National Register of Historic Places-Appendix A). The Secretary then determines whether significant data will be lost as a result of the Agency program or project and will advise the Agency of the requirements of the Act for conducting appropriate activities to recover, protect, and preserve significant data.

The Agency may then undertake the appropriate activities (data recovery) to fulfill the requirements of the Act, or may transfer funds to the Secretary to undertake the activities on behalf of the Agency. It should be noted that the Act is not designed as a substitute for compliance responsibilities to identify and evaluate cultural resources under NEPA, Section 106 of the NHPA, E. O. 11593 or 36 CFR 800. Rather, the Act provides for mitigation through data recovery of data loss which would result from an agency's project or program.

Section 7 (a) of the Act specifies that up to 1% of the total amount authorized to be appropriated for a project, excepting projects of \$50,000 or less, may be utilized by the Agency or transferred to the Secretary to undertake the appropriate data recovery activities.

At Fort Irwin, up to 1% of project funds for new construction and alteration projects, such as firing ranges, roads, targets, underground communications systems, buildings, etc., may be utilized to fund necessary data recovery if long-term preservation in place of scientific data is infeasible. It is recommended that NTC training program funds be utilized up to 1% in addition to provide

for the recovery of data which would be lost or destroyed as a result of the training activities. Training programs are as destructive to cultural resources, or more so, than construction projects, and in addition, recur at regularly scheduled intervals. This approach, then, would be consistent with the intent of the Act - to make projects and programs financially responsible for the damage that they cause to cultural resources. The provision of up to 1% of training program appropriations would not only assure a reasonable and dependable funding base for appropriate data recovery but would also result in eventual unrestricted access for training groups, where necessary and desirable.

Where long-term preservation of a cultural resource is not possible and appropriate data recovery cost would exceed the 1% limitation, a waiver of the limitation may be sought. Section 208 of the National Historic Preservation Act Amendments of 1980 authorizes waiver of the 1% limitation with Secretarial and appropriate congressional approval, should this be necessary (See "Procedures" below for further information).

Sections 3(a), 3(b) and 4(a) of the Act clearly state that the recovery, protection and preservation of data (data recovery) includes analysis of the recovered data and the publication of reports resulting from such investigations. Section 3(a) also requires Federal agencies to provide final reports of such investigations to the Secretary so that he may make them available to the public. Given the size and complexity of the Fort Irwin Archeological Project, it is imperative that funding allocations take into account the analysis and publication aspects of the data recovery process in accordance with the requirements of the law. Compliance with the Act is not complete until the full data recovery process through analysis, publication and dissemination of the results to the public has been accomplished (See "Procedures" below for instructions for submission of final reports to the Secretary.)

In cases of the unanticipated discovery of data during the course of a program or project, Section 4(a) of the Act provides expedited procedures for Secretarial notification, review and recommendations. The discovery procedures are to be used only in those situations where the Federal agency has already complied with Section 106 of the National Historic Preservation Act of 1966, as amended (Public Law 89-665) and are not to be used for Secretarial notification of intent to commence an undertaking (See "Procedures for Emergency Discovery of a Previously Unknown Cultural Resource" below).

Section 5(c) of the Act requires the Secretary to coordinate all Federal cultural resource survey and data recovery activities authorized under the Act. As one of the coordination requirements, the Secretary has set standards and guidelines for appropriate survey, recovery, preservation and protection activities and qualifications for professional personnel conducting those activities, including the Secretary's Standards and Guidelines for Archeology and Historic Preservation. (See also sections 101(f), (g) and (h) and 110 of the NHPA of 1966 as amended, Appendix A). The Secretary's Standards and Guidelines were utilized in the preparation of both volumes of the FIHPP and are provided in Appendix A for future reference and use in the conduct of the Fort Irwin Archeological Project.

Procedures for Notification to the Secretary of the Interior pursuant to Sections 2 and 3 of the Act

Written notification to the Secretary of the Interior should include the following information:

- (1) project, activity, or program location by county, state, township, range and section; Universal Transverse Mercator, or other appropriate description such as city and location(s), or address(es) within a city;
- (2) nature of the project, activity or program;
- (3) size and nature of the area of the project, activity or program;
- (4) any urgency factor related to the undertaking;
- (5) a description of the data that is being or may be lost and its potential significance; and
- (6) a description of the project, program, or activity conditions under which data may be lost.

Other materials that may be used to provide information necessary for the Secretary to determine whether data is significant and is being or may be lost or destroyed may include, but are not limited to, the following:

- (1) any preliminary case report, environmental assessment, environmental impact statement, and other technical reports associated with the project, program, or activity;

- (2) for prehistoric, historic, and archeological data, National Register or determination of eligibility documentation as specified by 36 CFR 60; and
- (3) copies of any notification provided to the Federal agency by another Federal or state agency or by an appropriate archeological or historic authority that data is being or may be lost.

The written notification and/or requests for assistance should be directed to:

Departmental Consulting Archeologist
National Park Service
P.O. Box 37127
Washington, D. C. 20013-7127

(202) 343-4101

Procedures for Emergency Discovery of a Previously Unknown Cultural Resource

1. Immediately stop disturbance to the site and provide telephone and subsequent written notification to the Secretary that potentially significant data may be or are being lost or destroyed. Notifications should be made to:

Departmental Consulting Archeologist
National Park Service
P.O. Box 37127
Washington, D. C. 20013-7127
(202) 343-4101

2. Notification should include the information specified in "Procedures for Notification to the Secretary of the Interior pursuant to Sections 2 and 3 of the Act" above, as well as a description of the discovered data and a statement of its potential significance, the nature and extent of environmental compliance activities previously undertaken for the project, plans the agency has to recover any significant data that may be otherwise lost or destroyed and funds available for that purpose.
3. In cases of urgency, the Secretary will utilize the following expedited procedures.
 - (a) The Secretary, in consultation with the affected agency, shall arrange for an appropriate investigation to determine the

significance of the data that may be lost or destroyed as the result of ongoing project implementation.

- (b) This determination of significance will be made within three working days of the receipt of written notification, whenever possible.
- (c) The Secretary shall notify the responsible agency of this determination immediately.

The Departmental Consulting Archeologist (DCA) carries out these responsibilities for the Secretary in that his or her representative evaluates the significance of the discovered properties in terms of the National Register of Historic Places criteria and makes recommendations to the agency on measures to recover significant data, if necessary. The DCA makes the final decisions regarding significance and data recovery efforts and advises his representatives of these decisions. If the DCA determines that the significance of the property, the effect of the project or the nature of the mitigation actions warrant consideration by the Advisory Council on Historic Preservation (ACHP), the project shall be referred to the ACHP (ref. Section 800.4 of the ACHP's regulations, 36 CFR Part 800).

Procedures for Waiver of One Percent Limitation on Archeological and Historical Data Recovery Activities

For data recovery projects where it is justified to exceed the 1% limitation and a waiver of the limitation is sought, the procedures in the "Fact Sheet on the Department of the Interior's Program Approach on Evaluating Federal Agency Requests for a Waiver of the One Percent Limitation on Archeological and Historical Data Recovery Activities" (See Appendix A) should be utilized.

Procedures for the Transmittal of Final Reports to National Technical Information Service (NTIS) and to the Secretary of the Interior

Within 30 days of the completion of investigations provide two (2) copies of the final report of investigations to the Secretary of the Interior through the Departmental Consulting Archeologist. One copy should be accompanied by a completed NTIS Optional Form 272 (See Appendix A for reproducible form).

**NATIONAL HISTORIC PRESERVATION ACT OF 1966 as amended
(Public Law 89-665 as amended by Public Law 91-243, Public
Law 93-54, Public Law 94-422, Public Law 96-199, Public Law
96-244, and Public Law 96-515)**

The requirement for compliance with Sections 106 and 110 of the Act account for the majority of the cultural resource management processes and procedures in the FIHPP. Section 106 requires the head of any Federal agency to take into account the effect that an agency undertaking may have on a historic property which is included in or eligible for inclusion in the National Register of Historic Places, and affords the Advisory Council on Historic Preservation the opportunity to comment with regard to the undertaking. Section 110(a)(2) requires the Agency to establish a program to locate, inventory and nominate to the National Register all properties owned or under agency control that appear to qualify for inclusion in the National Register.

These sections, thus, establish responsibilities for cultural resource management at Fort Irwin in two basic categories:

1. NTC proposed land-use undertakings (Section 106), and
2. NTC survey, inventory and nomination responsibilities (Section 110).

The "Historic Preservation Goals" (Chapter II, Volume I) were developed in response to the requirements of sections 106 and 110 of the Act and its implementing regulations. The activities of the Fort Irwin Archeological Project are designed to fulfill the "Goals" thereby ensuring compliance with these Sections of the Act (See Chapter II, Figure 2.1, "Management Process").

Integral to compliance with the Act under either section is the process of determination of eligibility of historic properties to the National Register of Historic Places.

Section 101(a)(1)(A) of the Act authorizes the Secretary of the Interior to expand and maintain the National Register. Section 101(a)(2) directs the Secretary to establish criteria for properties to be included in the National Register and to promulgate regulations for nominating properties for inclusion in the National Register.

The implementing regulations, 36 CFR Part 60 (See Appendix A), provide the procedural requirements for the National Register. Section 60.4 provides the criteria for evaluation of cultural resources for eligibility to and inclusion in the National Register. The applicable criterion for

evaluation of significance for the majority of archeological resources on Fort Irwin will be Criterion d, which requires that the resource(s) "...have yielded, or may be likely to yield, information important in prehistory or history."

Chapters I through IV of Volume II of the FIHPP provide the research context necessary to evaluate the significance of archeological resources under Criterion d for eligibility to the National Register. Expedited procedures for the evaluation of significance and subsequent determination of eligibility or non-eligibility to the National Register have been agreed upon by the State Historic Preservation Office, the Advisory Council on Historic Preservation and the NTC through a Memorandum of Agreement (See Appendix B and Goal 2, Chapter II page 2-10, this volume).

Archeological sites which are determined eligible and which can be preserved intact should be nominated to the National Register (See "Procedures" below). Archeological sites which are determined eligible and which cannot be preserved, and are subsequently destroyed or partially destroyed by data recovery, will, generally, not be nominated to the National Register. Exceptions to this recommendation may be made on a site specific basis, however.

Section 101(a)(7) of the Act authorizes the Secretary of the Interior to promulgate regulations to ensure that "...significant prehistoric and historic artifacts, and associated records, subject to Section 110 of this Act, the Act of June 27, 1960 (16 U.S.C. 469c) and the Archeological Resources Protection Act of 1979 (16 U.S.C. 470 a and following) are deposited in an institution with adequate long-term curatorial capabilities." Draft regulations on the curation of federally owned archeological collections have been developed by the National Park Service for the Secretary (36 CFR Part 79). These draft regulations have been provided in Appendix A and should be used for guidance in the curation of the records and collections accrued as a result of the Fort Irwin Archeological project until final regulations are adopted.

Under National Park Service administration of the Fort Irwin Archeological Project, approximately 1,350 cubic feet of archeological records and collections have already been accumulated and will require curation in a permanent, non-profit educational or research organization or institution or a Federal, state, local or tribal agency which provides professional, systematic and accountable curation and preservation in perpetuity for, and access to, archeological collections and attendant records.

To date, the records and collections have been catalogued and temporarily stored by the Fort Irwin Archeological Project contractor, as access to the collections was required for ongoing research. It is urgent that a permanent repository for the existing records and collections be selected and funding obtained to assure the physical security of the documents and artifacts and the accountability and accessibility of these collections. It is recommended that immediate steps be undertaken to select a satisfactory repository for the existing and future collections. When an agreement has been made with a repository and accessioning is complete, it is recommended that a second set of accession records be held at Fort Irwin.

Authorized by Sections 101(f), (g), and (h) and Section 110 of the Act, the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation provide technical advice about archeological and historic preservation activities and methods. The FIHPP follows the Standards and Guidelines' recommendations for preservation planning and identification, evaluation, registration and documentation of historic and prehistoric archeological resources consistent with the requirements of AR 420-40. It is anticipated that the Standards and Guidelines will continue to be utilized throughout the active phase of the Fort Irwin Archeological Project (See Appendix A).

As previously noted, Section 106 of the Act requires that an agency take into account the effect that an undertaking may have upon an eligible historic property "...prior to the approval of the expenditure of any Federal funds on the undertaking...", and to afford the Advisory Council "...a reasonable opportunity to comment with regard to such undertaking." Section 211 of the Act authorizes the Advisory Council to promulgate implementing regulations for Section 106. Provision has been made in these implementing regulations, 36 CFR Part 800 (Appendix A) for executing a Programmatic Memorandum of Agreement with agencies, such as the NTC, where numerous requests and time limits would make individual requests for comment infeasible (Part 800.8). Accordingly, a Programmatic MOA was executed in 1981 between the NTC, Advisory Council on Historic Preservation (ACHP) and the State Historic Preservation Office (SHPO) which constitutes the comments of the Council required by Section 106 and completes compliance with 36 CFR Part 800. The Agreement was amended in 1983. In addition, two individual Memoranda of Agreement were executed in addition to the Programmatic Agreement. Copies of all memoranda are included in Appendix B and are summarized and discussed later in this Chapter.

Section 110(a)(2) of the Act requires each Federal Agency to "...establish a program to locate, inventory and nominate..." all properties under their jurisdiction that "...appear to qualify for inclusion on the National Register..." Further, "Each Federal Agency shall exercise caution to assure that any such property that might qualify for inclusion is not inadvertently transferred, sold, demolished, substantially altered, or allowed to deteriorate significantly." The program is to be developed in cooperation with the State Historic Preservation Officer and with the advice of the Secretary of the Interior. Compliance coordination with the SHPO is summarized and discussed later in this Chapter.

Section 101(a)(2)(g) of the Act allows an agency to include the costs of preservation activities "...as eligible project costs in all undertakings...". Section 302 authorizes an agency to "...expend funds for its authorized programs for the purposes of activities carried out pursuant to this Act...". It should be noted that the expenditure of funds is not limited to data recovery and includes all preservation activities carried out pursuant to the Act. At Fort Irwin, it is expected that the major expenditure of funds will be directed towards compliance with Sections 106 and 110; however, the NTC's curatorial responsibilities under Section 101 will also require a substantial commitment of funds.

Section 201 of the Act establishes the Advisory Council on Historic Preservation and Section 202(a)(b) directs the Council, as one of its responsibilities, to review agency policies and programs and to provide recommendations to the agency to improve coordination with the Act. Coordination with the Council is summarized and discussed later in this Chapter.

Section 304 of the Act directs the agency to withhold from public disclosure specific locational information on cultural resources where there is risk of theft or destruction of the resources. It is recommended that all locational information be withheld from the public and NTC personnel as a general rule, with exceptions being allowed on case by case basis by the Staff Archeologist.

Procedures for Nomination of a Historic Resource to the National Register of Historic Places

See AR 420-40; Paragraph 1-5, page 1-3.

1. Complete INT Form NPS 10-306 (National Register of Historic Places Inventory-Nomination Form) and INT Form NPS 10-300a (Continuation Form) for each site or

district to be nominated. NOTE: Use blue forms (acid-free paper) only. Do not xerox nomination forms. Prepare and include required photographs and maps. INT Forms 10-306 and 10-300a are available from:

The Department of the Interior
National Park Service
18th and C Streets, NW
Washington, D. C. 20240

One copy of the nomination forms and the NPS publication How to Complete National Register Forms are provided in Appendix A.

2. National Register of Historic Places Inventory Requirement Control Symbol - (RCS.DOI-1005).
3. Notify the Chief Elected Local Official (Chairperson, Board of Supervisors, San Bernardino County) of the NTC's intent to nominate a historic property and afford a 45 day period for comment to the installation Commander. The Chairperson may choose to waive the rights to comment on the pending nomination and should be sent a copy of the Draft for Waiver. Examples of the letter of notification and the Draft for Waiver are provided in Appendix A. The letters include the correct wording approved by the National Register and should not be revised.
4. Send the nomination package (blue forms, required photos and maps) to the State Historic Preservation Officer requesting SHPO review and comment on the nomination. A copy of the NTC's letter to the Chief Local Elected Official should be included. The SHPO will review and comment on the nomination and return the package to the NTC with recommendations on the nomination. (An additional copy of the nomination package should be included for the SHPO's files.)
5. Upon receipt of comments or the waiver from the Chief Local Elected Official or the end of the 45 day comment period, the installation Commander should forward the nomination package along with the comments, waiver or a copy of the original letter (to the Chief Local Elected Official) confirming the passage of the 45 day comment period to:

Commander
HQ, FORSCOM
ATTN: AFEN-CDR
Fort McPherson, Georgia 30330

for signature by the Federal Representative.

6. A copy of the complete nomination package should be retained in the Staff Archeologist's files at Fort Irwin.

ARCHAEOLOGICAL RESOURCES PROTECTION ACT OF 1979 (Public Law 96-95).

The purpose of the Act and its implementing Uniform Regulations, 32 CFR Part 229 (DOD), is to provide protection for archeological resources on public and Indian lands. The excavation, removal, damage, alteration or defacing of archeological resources are prohibited unless they are carried out under a permit issued by the appropriate Federal land manager. Section 5 of the Regulations covers the permit requirements and exceptions (See Appendix A for the Act and 32 CFR Part 229).

Prior to the effective date (January 6, 1984) of the Uniform Regulations, the Department of the Interior issued permits for archeological investigations on all Federal lands except those of the USDA under the Antiquities Act of 1906. Since October 1, 1985, the Department of Defense would issue ARPA permits for lands under their control. Permits are required for any person who proposes to excavate and/or remove archeological resources at Fort Irwin and who is not carrying out official agency duties under the Federal land manager's direction (32 CFR 229.5 (c)) associated with the management of archeological resources). Accordingly, archeological contractors working for the Fort Irwin Archeological Project under contract to Fort Irwin through the Corps of Engineers, Los Angeles District, are not required to obtain a permit under the Act. The Federal land manager (NTC) is required, however, to document the information required under the permit and to otherwise satisfy all provisions of the permit requirements for individual projects. Permits or documentation of information are required on a project-specific basis. (See "Procedures for Application for Permits" below).

An important aspect of the permit requirements is the notification to Indian tribes of possible harm to, or destruction of sites having religious or cultural importance (32 CFR 229.7) at least 30 days prior to beginning the harmful or destructive actions. At Fort Irwin, notification is required for survey/evaluation projects, as well as for data recovery, due to the collection and/or excavation activities attendant with site evaluation for National Register eligibility determination. The NTC (Federal land manager) is responsible for the notification to Indian Tribes (See Appendix A for sample Letter of Notification to Indian Tribes).

The permit applicant or contractor must certify that "All artifacts, samples, collections and copies of records, data, photographs, and other documents resulting from work conducted under the permit.." will be delivered to an

approved university, museum or other scientific or educational institution no later than 90 days following the submission of the final report to the Federal land manager (32 CFR Part 229.8(a)(7)). The repository should fulfill the requirements specified in 36 CFR Part 79 authorized by the National Historic Preservation Act of 1966.

Section 6 of the Act addresses criminal penalties for actions prohibited under the Act, including: excavation, removal, damage to, alteration or defacement of archeological resources (Section 6(a)); or, sale, purchase, exchange, transport, receiving or offering for sale, purchase or exchange of archeological resources (Section 6(b)). Section 6(c) extends the prohibitions to interstate or foreign commerce. Section 6(d) sets the maximum penalties for violations of the prohibitions at:

first conviction - \$10,000 fine or 1 year imprisonment, or both; or, if the value of the archeological resource involved exceeds \$5,000 - \$20,000 fine or 2 years imprisonment, or both. Upon second or subsequent convictions, the violator may be fined \$100,000 and/or imprisoned for 5 years.

Civil penalties may also be assessed under the Act by the Federal land manager for violations of prohibitions contained in the Uniform Regulations, or violations of any terms and conditions included in a permit issued by the Federal land manager (Section 7(a)(1)). The amount of civil penalties is determined under the regulations (32 CFR Part 229.15, 16 and 17) by the Federal land manager and may take into account: 1) the archeological resource involved and the costs involved in restoration and/or repair of the archeological site (Section 7(a)(2)(A) and (B)). Second or subsequent violations may cause the assessment to be double the amount of the fine for a first violation. Further, archeological resources, vehicles and equipment involved in a violation may be subject to forfeiture (32 CFR Part 229.17). Under this section of the Regulations, awards may be made to persons who furnish information which leads to a conviction for a criminal violation or a civil penalty.

Section 9 of the Act directs the Federal land manager to keep information on the nature and locations of archeological resources confidential from the public.

Compliance with the Act and its implementing regulations will require a significant commitment on the part of the NTC to ensure the protection of the abundant archeological resources on Fort Irwin. An active program of education which emphasizes the nature and importance of cultural resources and encourages participation in the proper study

and protection of archeological resources can be a very effective, yet inexpensive, way to assure that NTC personnel and their dependents are aware of the Act and its prohibitions. A more formal communication of the prohibitions of the Act and possible penalties for violations should be provided to all NTC Elements and personnel in the form of Standard Operating Procedures. Several instances of illegal collection of archeological resources from Fort Irwin prior to enactment of ARPA are known to have taken place. Where the disposition of the collections is known, it is recommended that the NTC attempt to assure that the collections will ultimately be donated to the selected repository which holds the balance of the Fort Irwin Archeological Project collections and records.

If violations of the prohibitions of the Act, regulations or permit conditions occur, it is important for the NTC (Federal land manager) to prosecute the violators promptly under the Act.

It is recommended that the NTC encourage colleges, universities, museums and other scientific or educational institutions or other qualified scholars, to study the archeological resources on the Fort and the collections and records resulting from the Fort Irwin Archeological Project inasmuch as it is possible within the constraints of the NTC training program. Such privately funded research can provide benefits for researchers as well as cost savings and positive public relations for the NTC.

Procedures for ARPA Permits

Utilize Department of Defense procedures, after October 1, 1985.

NOTE: For Federally contracted archeological projects which do not require a permit, complete permit documentation is required, including notification to Indian Tribes.

NATIONAL ENVIRONMENTAL POLICY ACT OF 1969 (NEPA) Public Law 91-190)

In the event that it is necessary to produce environmental assessments (EA's) or environmental impact statements (EIS's) historic resources must be considered and professional expertise utilized.

EXECUTIVE ORDER 11593

Requirements of the Order pertinent to the conduct of the Fort Irwin Archeological Project have been made statutory by the NHPA of 1966 as amended.

**OVERVIEW OF DOD HISTORIC PRESERVATION
REGULATIONS AND GUIDANCE DOCUMENTS**

DEPARTMENT OF DEFENSE DIRECTIVE NUMBER 4710.1-June 21, 1984

The Directive (See Appendix B) establishes policy, prescribes procedures and assigns responsibilities for the management of archeological and historic resources on lands under DOD control (Section A).

Important points of policy for the Fort Irwin Archeological Project are the integration of historic preservation requirements with the planning and management of NTC activities and the minimization of expenditures through identifying and utilizing compliance options (Section D).

Heads of DOD components are responsible for: coordination with the State Historic Preservation Officer and the Advisory Council on Historic Preservation (if necessary); integration of the historic preservation programs into land-use planning; program and budget development and implementation for historic preservation compliance programs; general compliance with the Directive; and the selection of an official designee responsible for matters pertaining to the Directive (Section E.2.).

Section F, "Procedures," directs each DOD installation to maintain a historic preservation plan that contains a scientifically based study which predicts the probability of the presence of historic resources, an inventory evaluation of known historic resources, strategies for compliance with Federal laws and regulations and which is consistent with state, local and other appropriate Federal historic preservation programs. When it is completed the FIHPP will fulfill this requirement (Section F.1.), and provide a performance oriented program which will fulfill the appropriate procedural requirements under the Directive.

ARMY REGULATION 420-40 - HISTORIC PRESERVATION - 15 May 1984

This Regulation "...prescribes management responsibilities and standards for treatment of historic properties...on land controlled or used by the Army" (AR 420-40, Summary). AR 420-40 is the major management guidance document utilized in the FIHPP.

The FIHPP has been prepared to fulfill the requirements of Chapter II, "Historic Preservation Plan," of the Regulations, with one exception. Funding, staffing and milestones (paragraph 2-3, item g) have not been identified by the NTC for the Fort Irwin Archeological Project. Chapter I, "General," of the Regulations requires that the installation commander "...Budget or program for resource requirements sufficient to carry out the HPP." (See paragraph 1-4 e.(3)). To date, no budget or program has been instituted with the result that the performance of the Fort Irwin Archeological Project has been severely affected and that the NTC is not in compliance with Federal historic preservation laws and regulations nor with AR 420-40 and DOD Directive 4710.1. Funding has been insufficient to maintain compliance with Memoranda of Agreement with the Advisory Council on Historic Preservation and the State Historic Preservation Officer. The lack of a program with adequate consideration of milestones and compliance goals has exacerbated the funding problem and has resulted in large, outstanding analysis debts and a major debt for curatorial responsibilities which must be met.

The complexity and scope of the NTC training program at Fort Irwin make it imperative that funding and program requirements under the DA Regulation, DOD Directive and Federal law be addressed immediately, incorporated into the FIHPP, and operationalized. Chapter IV of the Regulations, paragraph 4-2 provides detailed information on funding and programming. Due to the unique nature of the NTC program and the resultant accelerated damage and destruction of archeological resources, as compared to other training installations, it is recommended that funding for data recovery and/or long term preservation of archeological sites be obtained from the training program funds (See pp. 1-19 and 20) as this aspect of NTC activities is the major source of destructive impacts (See Section 106, NHPA of 1966). Inventory responsibilities (See Section 110, NHPA of 1966) will be funded through Operations and Maintenance Accounts, according to the Regulation. Paragraph 4-2.b. states:

Funding for historic preservation activities will be consistent with priorities established by the HPP or NHPA compliance activities. At a minimum resources will be provided to develop the HPP,

implement the priority projects identified in the HPP, and meet NHPA, Section 106, requirements.

Since funding to date has been inadequate to accomplish these minimal requirements, funding in excess of the yearly increments necessary to accomplish new work will be required to bring the NTC into compliance with Section 106 requirements and other appropriate Federal historic preservation laws and regulations.

As AR 420-40 is the basic management document for all DA historic preservation activities, all NTC personnel with responsibilities for performance under the Regulation should be intimately familiar with the complete document and held responsible for its implementation.

MEMORANDA OF AGREEMENT - NTC, ACHP AND SHPO

Programmatic Memorandum of Agreement of September, 1981, as amended

A Programmatic Memorandum of Agreement for the ongoing mission at Fort Irwin between the Advisory Council on Historic Preservation, the State Historic Preservation Officer and the NTC was executed under 36 CFR Part 800.8 in September, 1981. The document constitutes the comments of the Council required by Section 106 of the National Historic Preservation Act, Section 2(b) of Executive Order 11593, "Protection and Enhancement of the Cultural Environment," and completes compliance with the Council's regulations, "Protection of Historic and Cultural properties" 36 CFR Part 800, (King 1981 correspondence, See Appendix B).

Stipulation IV.B. of the Agreement provides the Council and the SHPO a 30 day period in which to review the proposed FIHPP and to provide written objections. If there are no objections, the Plan may be approved and implemented under DA regulations.

Once the FIHPP has been approved, the Council and the SHPO are afforded the opportunity to provide written objections to any modification to the Plan and to consult with the NTC to resolve the objections.

Stipulation VIII. allows for a modification to the Agreement through an addendum or amendment.

Stipulations IV.A.c. and d. require a timetable for completion of survey (inventory) and a staffing and funding program respectively. As noted in the discussion under AR 420-40, the NTC has failed to comply with these stipulations as part of the Agreement, as DA regulations, or as requirements under Federal laws and regulations. Until these programs are developed, approved, included in the FIHPP and implemented, the FIHPP cannot be considered complete nor the NTC in compliance with Federal law.

Full implementation of the FIHPP will ensure that the remainder of the stipulations of the Agreement are carried out at Fort Irwin.

The Agreement of September, 1981 was modified in July 1983 by amendment pursuant to Section 800.6(c)(4) (36 CFR Part 800). The amendment replaced Stipulation VI. and provided procedures to be followed for survey, determination of eligibility and treatment of eligible archeological properties prior to approval and implementation of the FIHPP. Stipulation VI.(B) of the Amendment has been incorporated

in the FIHPP in Chapter II, Volume I; Stipulation VI.(A) in Chapter III, Volume II and Chapter II, Volume I; and Stipulations VI.(C) and (D) in the "Procedures" which follow.

Procedures for Compliance with the Programmatic Memorandum Of Agreement of September, 1981 as amended - Advisory Council on Historic Preservation

1. Afford the Advisory Council on Historic Preservation the opportunity to comment on the appropriate treatment for eligible properties (avoidance through long-term preservation or mitigation through data recovery) where:
 - a. following consultation with the SHPO, agreement cannot be reached;
 - b. the property is of national significance; and,
 - c. the property has historic or cultural significance to a community, ethnic or social group that would be impaired by its disturbance.
2. Part III, "Recommendations for Archeological Data Recovery," Treatment of Archeological Properties (ACHP 1980 - See Appendix B) should be taken into account for all data recovery projects (Stipulation IV.A.6.d.).
3. Submit the draft FIHPP to the Council for review. If, following their review, the Council provides written objections to the draft Plan, consult with the Council and SHPO to resolve the objections (Stipulation IV.B).
4. When the FIHPP has been approved, submit any subsequent modification to the Plan to the Council for review. If, following the review, the Council provides written objections to the modifications, consult with the Council and SHPO to resolve the objections (Stipulation IV.B).
5. Follow applicable Army, Department of Interior and Council guidelines and regulations for those historic resources which appear to be eligible for reasons other than their pertinence to the hypotheses in Chapter II, Volume II of the FIHPP, in consultation with the SHPO (Stipulation VI.(C) Amendment).

6. Provide copies of all Quarterly, Annual, Monitoring and/or other periodic management reports to the Council and afford the Council the opportunity to participate in review of ongoing Fort Irwin Archeological Project activities (Stipulation VI.(D), Amendment).
7. If terms of the Agreement cannot be met or a modification to the Agreement is necessary, immediately request the Council and SHPO to consider an amendment or addendum to the Agreement (Stipulation VIII).

Procedures for Compliance with the Programmatic Memorandum of Agreement of September, 1981 as Amended - State Historic Preservation Officer

1. Provide copies of documents generated under the Agreement to the SHPO for review and comment as follows:
 - a. Scope of work and accepted proposals with schedules for performance;
 - b. professional technical reports of all survey/evaluation or mitigative projects;
 - c. all management reports, including Quarterly Reports, Monitoring Reports and the Annual Report; and,
 - d. Fort Irwin Archeological Project planning documents, including those prepared for the FIHPP, Joint Training Exercises, National Guard and Army Reserve exercises (Stipulation III).
2. Complete and implement the FIHPP in consultation with the SHPO and other appropriate historic preservation specialists (Stipulation IV).
3. Following identification of archeological priorities by historic preservation personnel and land-use priorities by NTC personnel (See Chapter II, "Requirements to Achieve Goal 3"), members of these two parties will consult with the SHPO to select an appropriate alternative course of action (avoidance or mitigation) for the archeological properties. Where the parties and the SHPO cannot reach agreement SHPO on course of action, the Advisory Council on Historic Preservation will be afforded an opportunity to comment (Stipulation IV.A.6.c.; See also preceding Council Procedures, Item 1.).

4. Provide for periodic review and refinement of the FIHPP in consultation with the SHPO (Stipulation IV.A.8.; See Chapter IV, "Schedule for Review and Revision of the FIHPP").
5. Submit the draft FIHPP to the SHPO for review. If, following review, the SHPO provides written objections to the draft Plan, consult with the SHPO and the Council to resolve the objections (Stipulation IV.B.).
6. When the FIHPP has been approved, submit any subsequent modification to the Plan to the SHPO for review. If, following the review, the SHPO provides written objections to the modifications, consult with the SHPO and the Council to resolve the objections (Stipulation IV.B.).
7. In consultation with the SHPO, follow applicable Army, Department of Interior and Council guidelines and regulations for those historic resources which appear to be eligible for reasons other than their pertinence to the hypotheses in Chapter II, Volume II of the FIHPP (Stipulation VI.(C) Amendment).
8. If the terms of the Agreement cannot be met or a modification to the Agreement is necessary, immediately request the SHPO and the Council to consider an amendment or addendum to the Agreement (Stipulation VIII).
9. Coordination and consultation with the SHPO as required by the Agreement will utilize the following calendar based upon fiscal and program schedules:
 - a. submit for review upon receipt and/or completion: scopes of work and accepted proposals with the schedules for performance, technical reports, plans or other products produced under the Agreement.
 - b. submit Quarterly Reports within the month following the close of the preceding FY quarter (January, April, July, and October).
 - c. submit Monitoring (annual summary) Report and the Annual Report of the Fort Irwin Archeological Project yearly in November.
 - d. meet at least twice annually with the SHPO:
 - 1) in June to select appropriate alternative courses of action for archeological proper-

ties, and 2) in November following the submission of the Annual Report.

- e. meet as necessary to satisfy other consultation requirements above: FIHPP; Joint Training, National Guard and Army Reserve exercises.

**MEMORANDUM OF UNDERSTANDING BETWEEN THE U.S. ARMY AND THE
BUREAU OF LAND MANAGEMENT CONCERNING THE RECIPROCAL EXCHANGE
OF CULTURAL RESOURCE DATA**

The Memorandum was prepared to assure an exchange of pertinent cultural resource information between the Bureau of Land Management (BLM) and the NTC (See Appendix B).

The BLM agrees to make their cultural resource data base file accessible and to send copies of pertinent cultural resource reports to the NTC. The NTC reciprocates by sending copies of cultural resource reports and other pertinent documents to the BLM. Draft reports may be sent for review and comment, as appropriate, by either agency staff specialist. Both agencies agree to keep all cultural resource information confidential.

**Procedures for Compliance With Memorandum of Understanding -
BLM, NTC**

1. Send copies of cultural resource reports and other appropriate documents to:
 - a. Bureau of Land Management
831 Barstow Road
Barstow, Ca. 92311
 - b. Bureau of Land Management
1695 Spruce Avenue
Riverside, CA. 92507
Attn: District Archeologist
2. Place copies of BLM cultural resource reports and other appropriate documents in a secure facility with controlled access to assure confidentiality of the information.

NTC OUTGRANTS - GOLDSTONE TRACKING STATION AND LEACH LAKE RANGE

Goldstone Tracking Station - NASA

The Goldstone Tracking Station (40,450 acres) is a NASA outgrant of Fort Irwin. Forces Command (FORSCOM) guidance places the responsibility for compliance with the National Historic Preservation Act (NHPA), and costs coincident with compliance, with the NTC (See Appendix B). Necessary archeological survey/evaluation and data recovery compliance costs resulting from NASA proposed construction will be born by NASA, however. In the case of joint-use Army activities within the area, the NTC is responsible for an archeological survey of the area and any resultant evaluation and data recovery as may be necessary. If no NTC exercises will make use of the area, inventory responsibilities under the NHPA are a low priority responsibility of the NTC.

Leach Lake Range - US Air Force

Leach Lake Range is leased to George Air Force Base as an Air Force gunnery range (See Appendix B). As with the Goldstone Tracking Station, the NTC retains the responsibility for survey/evaluation (inventory) compliance requirements under the National Historic Preservation Act (NHPA). While it is not substantiated by specific Forces Command guidance, it is expected that the Air Force would be held responsible for compliance with the NHPA and for costs associated with compliance associated with impacts to cultural resources resulting from Air Force construction or activities.

Unlike the Goldstone facilities, the use of the Leach Lake Range by the Air Force causes environmental impacts which could damage or destroy archeological sites. Impacts from construction of support facilities have impacted at least one archeological site at Leach Spring (Farrell, p.c. 1983), and it is probable that many unrecorded archeological sites have been damaged or destroyed by activities undertaken at the gunnery range in the past. This damage is expected to continue with use of the Range.

To date, there has been no formal inventory of cultural resources on the Range; however, the Archeological Sensitivity Map of the Northern (Mojave) Desert, compiled by Davis (1980) for the California Desert Planning Program of the Bureau of Land Management indicates the presence of a large number of archeological sites, both historic and prehistoric, within the Range boundaries. Amateur archeologists have visited the area on an informal basis over the years

and numerous artifacts illegally collected from the Leach Lake basin are currently held in private collections. An informal visit to the Range in 1983 by Los Angeles District Corps of Engineers and National Park Service archeologists confirmed the presence of abundant archeological sites on the Range.

Procedures to Coordinate NHPA Compliance Responsibilities with Outgrant Agencies

Goldstone Tracking Station

1. Assure that NASA provides complete information on proposed construction early in the planning process for review by appropriate NTC personnel to assure NASA compliance with the NHPA.
2. If NTC joint-use activities are proposed, undertake an archeological survey of the use-area and such evaluation and data recovery projects as necessary for compliance with the NHPA (See pp 1-37 through 1-47).

Leach Lake Range

1. Assure that the Air Force (George Air Force Base) undertakes archeological survey/evaluation and data recovery as necessary, to obtain an inventory and to mitigate impacts to archeological resources resulting from use of the gunnery range in compliance with the NHPA (See pp 1-37 through 1-47) and consistent with the FIHPP.

CHAPTER II - VOLUME I HISTORIC PRESERVATION GOALS

INTRODUCTION

While the Research Overview provides the historic contexts necessary for an effective historic preservation plan, the Management Plan provides processual guidance for the management of the cultural resources present on Fort Irwin. The process of cultural resource management is perhaps best expressed through the identification of a series of goals. These goals originate in the legislation and regulations and are informed by the historic contexts of the Research Overview. The Management Plan provides the procedures whereby these goals may be pursued in conjunction with the ongoing NTC training activities.

To assure compliance with historic preservation laws and regulations, five goals and the activities required to achieve them are presented in an order which is consistent with the management process. The order of presentation does not necessarily imply a priority order of performance in their achievement, however. Figure 2.1, Management Process, illustrates the ordering of the goals within the management process.

Goal 1 - Complete the inventory of cultural resources within the Research/Management Areas - is responsive to both NTC land-use and inventory compliance responsibilities.

Goal 2 - Using inventory data, identify cultural resources to be considered eligible for inclusion in the National Register of Historic Places pursuant to 36 CFR 63 and 60.4, 36 CFR 800 and with the Memorandum of Agreement between the SHPO, ACHP and the NTC of September, 1981 - will result in the identification of the cultural resources which will require a treatment decision for long-term protection and preservation or for mitigation of impacts through data recovery.

Goal 3 - Identify archeological and land-use priorities within Research/Management Areas to inform treatment decisions for preservation and/or data recovery of cultural resources - provides for consideration of archeological and land-use priorities in reaching decisions resulting in the treatment of cultural resources determined eligible for the National Register of Historic Places.

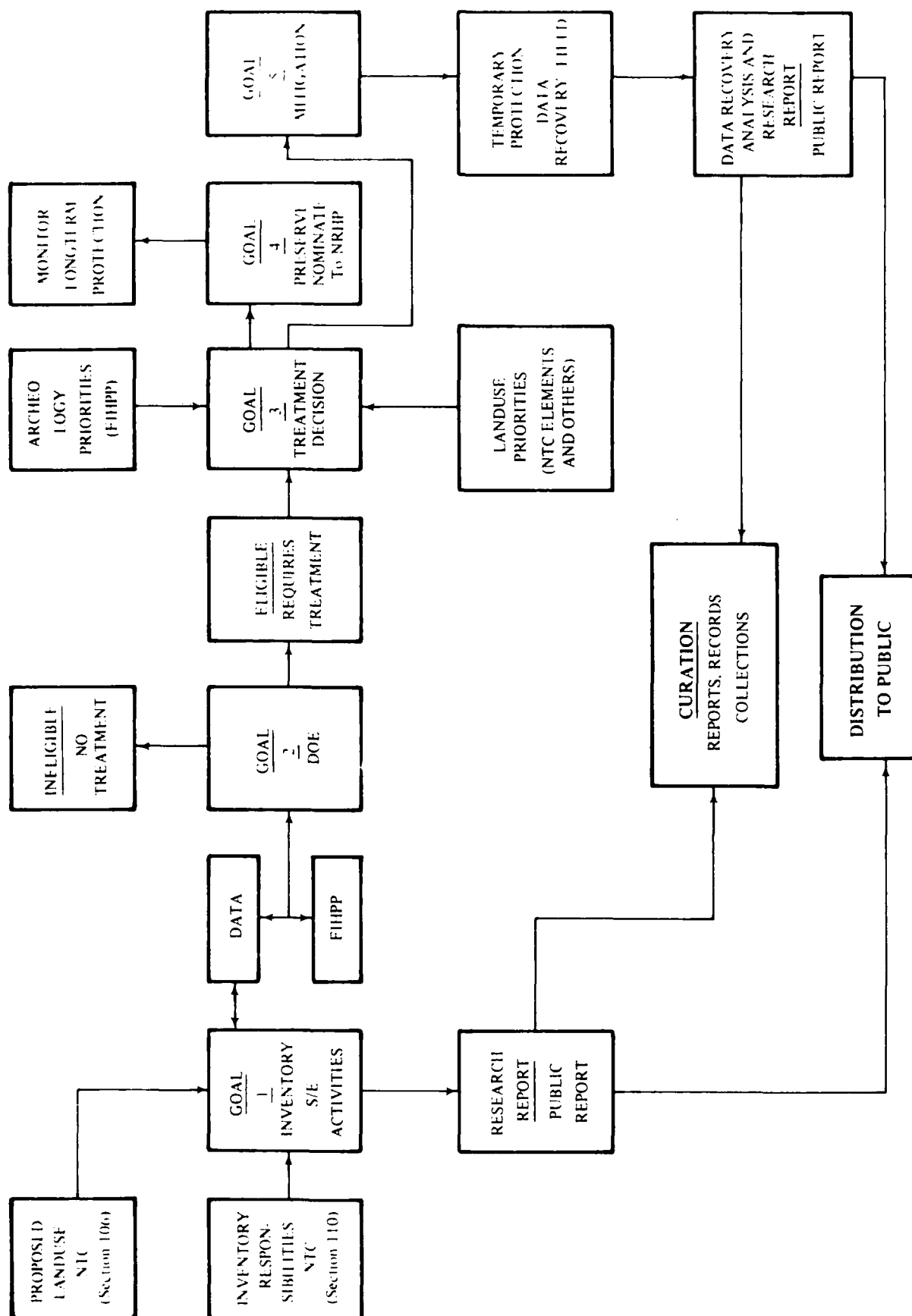


FIGURE 2.1 MANAGEMENT PROCESS

Goal 4 - Preserve/protect a sample of cultural resources (site types) representative of Early, Middle and Late Times settlement/subsistence systems, and

Goal 5 - Recover scientific information from cultural resources as necessary to support or reject the models and hypotheses identified in the Research Overview (Volume II) - are the apparent final goals, the management process continues through the monitoring activities under Goal 4.

GOALS

Ideally, the management process should begin with Goal 1 and proceed with goals being met in sequence to either Goal 4 or Goal 5. Realistically, the NTC land-use priorities demand that the five goals be addressed simultaneously within the various Research/Management Areas. The heavy schedule of training exercise rotations and supporting activities results in severely limited access to much of the Fort for inventory and mitigation projects; thus, survey/evaluation may be undertaken in one Research/Management Area while data recovery is ongoing in another. The Management Plan has been designed to provide the necessary flexibility to respond to NTC historic preservation compliance needs by providing the process through which the goals may be met.

Goal 1 - Complete the Inventory of Cultural Resources within the Research/Management Areas of Fort Irwin

Adequate information must be obtained on the full range of cultural resources present on the Fort in order to support or reject the hypotheses and the Subsistence Focus Model presented in the Research Overview. This does not mean that a 100% inventory of the entire Fort is required. Just as different areas of the Fort are being utilized for different activities by the NTC in satisfaction of the requirements of its mission, so areas of this same region were differentially utilized by prehistoric and historic populations over time. The Research Overview predicts the probable locations of specific site types which are important to the research designs for Early, Middle and Late Times.

Inventory completed in the Research/Management Areas to date indicates the presence of many of these site types within the use areas of the NTC and the possibility of damage to or destruction of the resources as a direct result of NTC activities. Early inventory efforts, however, were often limited to survey alone without completion of the necessary work to allow sites to be evaluated in terms of their potential to inform the research designs of the Overview. This situation was the result of inadequate funding to allow site evaluation to be completed as a necessary part of inventory activities. As a consequence, it is impossible for archeologists to make responsible management recommendations or for the NTC to make responsible decisions with regard to these unevaluated archeological sites (which number over 500 to date.) For example, a site may be protected, which implies denied access to military activities, while funds are sought to assess its archeological potential. During this time, monitoring activities are required and the potential for impact (whether intentional or unintentional) is high. Upon evaluation, the site may be found to have a high potential for information and become a candidate for continued preservation or mitigative measures, or the assessment procedures may recover the information content of the site thus releasing the area to unrestricted military use.

A further complication arises from insufficient evaluation. Is a particular site unique, containing information available in no other site on the Fort? Or, is this site one of many examples of the same site type, containing similar information, others of which can be permanently preserved in a representative sample? An important management decision should be informed in either case, based upon a sound site evaluation.

Military activities in uninventoried areas have resulted and will continue to result in damage to and destruction of archeological sites. The resultant loss of scientific information cannot be estimated.

It is clearly urgent that inventory, to include survey and concomitant evaluation of recorded sites of specified areas on Fort Irwin, be continued. The Research/Management units have been subjected to differing levels of survey and site evaluation depending, in general, upon the intensity of land use by the NTC and the high level of expected impacts. Based upon the existing inventory data (See Appendix C, Chapter III, and "Research Plans for Survey/Evaluation," Volume II). Areas have been identified for survey/evaluation where sites are expected. Most of these high site probability areas are within areas heavily utilized by the NTC in mission related activities and are subject to frequent, heavy impact from tracked vehicles and personnel.

Procedures to Achieve Goal 1

1. Complete inventory (conduct evaluation) of recorded, unevaluated sites.
2. Complete inventory (survey/evaluation) in Research/Management Areas as recommended in Chapter 3, Research Overview.
3. Complete inventories and produce a professional report of the work in a manner consistent with Chapter 5, Research Overview, the Secretary of the Interior's Standards and Guidelines, AR-420-40, ARPA, and all other pertinent legislation and regulations for archeology and historic preservation.
4. Update "Research Overview," "Management Plan" and all associated maps and files with inventory data as it becomes available.
5. Provide the following documents to the State Historic Preservation Officer, NTC, National Park Service - Western Region and Regional Archeological Information Center (San Bernardino County Museum):
 - a) A completed State of California Site Record with a trinomial site designation for each site recorded and/or evaluated, and
 - b) A professional report of the inventory.
6. Provide inventory data to DEH on all archeological sites or areas where resource management decisions

are necessary and/or may influence the conduct of NTC mission activities.

7. Evaluate inventory as soon as it is obtained to determine whether an identified archeological site contains data which may address the models and hypotheses identified in the Research Overview. The evaluation should be specific as to the site type and Research Design (Early, Middle, or Late Times) which it may inform.
8. Provide the SHPO, ACHP and appropriate Native American groups (if necessary) the opportunity to comment on any inventory data and/or management decisions that may have an adverse effect on a historic property and provide for any resulting consultation or coordination procedures with their representatives, as necessary (See Programmatic Memorandum of Agreement of September, 1981, as amended, p. 1-47).
9. As soon as inventory data have been compiled and evaluated for a site or area, that information which may have any bearing on the conduct of NTC mission activities, will be transmitted in writing to the DEH accompanied by any pertinent maps or other documents necessary to making management decisions (AR 420.10 paragraph 1-4.f(6)). This transmittal of data should be undertaken prior to the production of the professional report of the inventory activities.

Goal 2 - Using inventory data, identify cultural resources to be considered eligible for inclusion in the National Register of Historic Places pursuant to 36 CFR 63 and 60.4, 36 CFR 800, and with the Memorandum of Agreement between the SHPO, ACHP, and the NTC of September, 1981 (as amended April, 1983).

Due to the intensity of military training at the Fort, severe time limitations are imposed on the normal scheduling for determination of eligibility procedures. In order to be responsible to both the NTC schedules and priorities and responsible to the Federal laws and regulations, the following procedures for determination of eligibility have been agreed upon by the SHPO, ACHP and the NTC (MOA of September, 1981, as amended April, 1983) (See Appendix B).

For most archeological sites, the applicable criterion for eligibility will be criterion d "...have yielded or may be likely to yield, information important in prehistory or history," (36 CFR Part 60.4). To determine whether a site meets the criterion, the inventory data for each recorded archeological site will be compared with the hypothesized site types and data categories identified in the Early, Middle and Late Times Research Designs of the Research Overview. If the site(s) is found to be representative of a site type(s) or if it contains data which will inform the hypotheses and/or Subsistence Focus Model beyond that which has already been realized from the survey/evaluation activities, the site(s) will be considered eligible for inclusion in the National Register of Historic Places.

It is possible for a single archeological site to contain information that may be used to address several hypotheses from each of the three research designs. It is also possible that the study of a specific aspect of a series of sites will provide information important to understanding settlement/subsistence patterns. Thus, it is important that all pertinent potential sources of information be clearly identified and evaluated.

The State of California Site Record Form prepared at the time of inventory should be completed with regard to the determination of eligibility status of each site as soon as the evaluation takes place. Because the determination of eligibility will have a direct bearing upon the NTC land-use management decisions, this aspect of evaluation should be completed responsibly and expeditiously. As they are evaluated, sites considered eligible will be clearly located on planning maps.

Procedures to Achieve Goal 2

1. Review inventory data to identify archeological sites or districts which contain or are likely to contain information which may be used to address the models and hypotheses identified in the Research Overview. These sites/districts will be considered eligible for inclusion in the National Register of Historic Places.
2. Update all inventory site forms, files and planning maps/documents to reflect the eligibility status of archeological sites, whether the site is considered eligible or ineligible.
3. As soon as it has been determined, provide eligibility status of sites to the DEH for coordination with NTC mission activities and to inform land-use management decisions.
4. Provide the updated State of California Site Records to the Regional Archeological Information Center, presently San Bernardino County Museum.

Goal 3 - Identify archeological and land-use priorities within Research/Management Areas to inform treatment decisions for preservation and/or data recovery of cultural resources.

The availability of funding and field time are perhaps the most obvious and powerful factors influencing the performance of both military and historic preservation activities at Fort Irwin. Of equal importance is the assurance of accountability in the expenditure of public funds. Prioritization is necessary to insure that public dollars are spent wisely in the recovery of important information which if unrecovered would result in a major loss to the scientific study of historic and prehistoric populations. These and other limiting factors operate to make prioritization of historic preservation and military land-use activities necessary. As land-use and historic preservation decisions are interdependent, it follows that priorities resulting from them must be coordinated so that a responsive and responsible program of historic preservation may be undertaken.

Considerations which contribute to the setting of archeological priorities are the uniqueness of the data categories contained within the site and the potential of the data categories to inform the models and hypotheses of the Research Overview. The integrity of the site and, therefore, of the data categories which it contains, will be important in the consideration of both archeological and land-use priorities. For example, if a site retains a high degree of integrity, contains multiple data categories whose study is essential to answering the questions posed in the Research Overview and also happens to be in an area which cannot be avoided by military activities, its placement on the priority list for mitigative action would undoubtedly be high. If, on the other hand, this same site could be preserved intact, through avoidance by training or other military land-use activities, the site would not be highly prioritized in terms of mitigative action but would have a high priority in terms of preservation.

In setting archeological priorities, however, there is a logical order of performance dictated by scientific method which must also be taken into account. Obviously, survey and evaluation (inventory) projects must precede site management activities in order to inform them. Further, it is clear that the field recovery of data alone, without subsequent analysis of the data and full publication and dissemination of the results to the public, is unsatisfactory in that it does not inform the research questions which prompted the action in the first place. The failure

to complete relevant analyses and to apply the results to the models and hypotheses presented in the Research Overview can result in more mitigative actions being undertaken than are necessary due to lack of appropriate data on which to base management decisions. The setting of archeological priorities, therefore, also should be guided by the sequence of performance most likely to provide information which can be used to address the models and hypotheses of the Research Overview.

At the same time, there are strict considerations on land-use imposed by the NTC training mission. The use of certain physiographic areas for training is essential to the success of the mission objectives, whether cultural resources are present or not. The type and level of impact which will result from the land-use will differ, however, depending upon the specific use and the intensity of the use to which the area is subjected. Land-use priorities, then, must respond not only to urgency of mission program needs, but also to the specific impact types and levels which may be expected in an area. A high priority land-use area would be one in which the type and level of impact would be expected to destroy the information content of archeological sites. Examples of such land-use areas would be heavily used transportation corridors, training and bivouac areas where intensive and cumulative ground-disturbing activities are common. Another high priority land-use area would be within a formerly unused new construction area.

A lower priority would be assigned to a land-use area where access, and thus, impacts could be controlled if desired. An example of such an area might be a training area where an archeological site could be preserved through avoidance by incorporating the site area into the training exercise (a designated mine field or other non-trafficable area) and thus protect the site from impact. Low priority should be assigned only to those areas where land-use is non-destructive or absent (See Chapter III, Land-Use Priorities).

Following the identification of archeological priorities by historic preservation personnel and land-use priorities by NTC personnel, coordination between representatives of both groups and the SHPO (See Chapter I, "Procedures for compliance with the Programmatic Memorandum of Agreement of September, 1981 as amended - State Historic Preservation Officer) must be undertaken to determine the effects that NTC operations will have upon the cultural resources present on the Fort. The end product of this consultation will be decisions on the appropriate treatment of archeological properties (long-term protection or mitigation through data recovery) and a single priority list of archeological

projects to be performed. The intensity of land-use and the number and type of archeological sites which contain important information, and which will be adversely affected by the land-use, will realistically determine the level of archeological project performance.

Setting priorities will provide the guidance for both land-use and archeological decision-making and provide a sound basis for the allocation of funding and personnel effort. It also provides for informal estimation and planning of projects resulting in cost and time efficiency. Most importantly, it ensures that time and dollars will be targeted on the important concerns of both the NTC and the scientific community.

Procedures to Achieve Goal 3

NOTE: In following the procedures below, personnel responsible for the performance of specific procedural tasks have been identified: the archeological (research) personnel - the designated cultural resource managers; the NTC (management) personnel; and the State Historic Preservation Officer.

ARCHEOLOGICAL (RESEARCH) PERSONNEL

1. Review inventory data of each Research/Management Area on a quarterly (FY) schedule, to identify those sites or areas which have the highest probability of containing data categories whose study may provide a substantial contribution to testing the models and hypotheses of the Research Overview.
2. Develop a Research Project Priority List (based on 1. above) for each Research/Management Area, categorized as follows:
 - a. Survey/Evaluation;
 - b. Evaluation; and
 - c. Data Recovery/Long-term Protection.

NTC (MANAGEMENT) PERSONNEL

3. Review land-use data and planning documents within each Research/Management Area to identify those areas which have the highest probability of sustained destructive impacts to archeological properties and/or which will be subject to new, land-disturbing impacts (for example construction or new training sites).

4. Identify those areas (based on 3. above) where impacts cannot be prevented through avoidance or project redesign.
5. Develop a Land-Use Priority List based upon need for archeological clearance identified in 3. and 4. above.

RESEARCH, MANAGEMENT AND STATE HISTORIC PRESERVATION OFFICE PERSONNEL

6. Using the Research Project Priority List and the Land-Use Priority List, and following consultation with the the State Historic Preservation Office, decide on appropriate treatment for archeological sites, districts, or areas either through preservation (avoidance) longterm protection or data recovery (mitigation). Identify priority areas for inventory projects (survey/evaluation) using the matrix in Figure 2.2.
7. Develop a single combined Archeological Project Priority List of proposed archeological projects based

NTC LAND - USE PRIORITY AREAS

PREDICTED SITE DENSITY AREAS		Priority 1 (High)	Priority 2 (Medium)	Priority 3† (Low)
	Level 1	1	1	2
	Level 2	1	2	3
	Level 3††	1	2	3

**FIGURE 2.2 MATRIX FOR DETERMINATION OF INVENTORY
(SURVEY / EVALUATION) PRIORITIES**

† See Chapter III

†† See Volume II , Chapter III

upon the information provided in the Research Project and Land-Use priority lists for the Research/Management Areas which is fully responsive to treatment decisions. It is recommended that at least ten high priority projects, which may include survey/evaluation and data recovery, should be identified.

ARCHEOLOGICAL (RESEARCH) PERSONNEL

8. Prepare budget, schedule, and level of effort estimates for each of the ten priority archeological projects identified for performance in 7. above and provide to DEH. Estimates should be accompanied by brief but complete justification of research/management priorities and a 1:50,000 m map of the proposed project area with any temporary protective fences indicated (See Chapter IV, p. 4-19).

NTC (MANAGEMENT) PERSONNEL

9. Submit funding documents through appropriate channels and coordinate field access for approved priority archeological projects.

Goal 4 - Preserve (protect) a sample of cultural resources (site types) representative of Early, Middle and Late Times settlement/subsistence systems as identified in the Research Overview for future research or interpretive values.

While preservation of archeological sites is the preferred treatment, it is recognized that a 100% attainment of Goal 4 is neither practical nor possible. This Goal should be met, nevertheless, to the closest extent that is feasible. Two particularly troublesome obstacles which will not allow for a full realization of this goal are the land-use requirements for the successful accomplishment of the NTC mission and the occurrence of site types on the Fort. First, it is impossible for the NTC training units to avoid impacting all archeological sites without seriously hampering their training mission. Further, site types which occur in the trafficable areas of the Fort will be impacted disproportionately. It is an unfortunate reality that land areas, such as transportation corridors, water sources and overlook sites, which were used intensively in the past by prehistoric populations, are those which are most likely to be heavily used today in the NTC training program.

Second, it is not known whether all of the site types identified in the three research designs will be found on Fort Irwin. It is possible that certain subsistence activities were never undertaken at the Fort area or occurred at such a low incidence that evidence for the site type has not survived.

A third constraint that mitigates against the preservation of a representative sample of the archeological settlement/subsistence systems is that there is insufficient information at this time to accurately predict what a truly representative preservation sample should contain. The present level of knowledge of Mojave Desert archeology is inadequate to assure that site types will be preserved in proportion to their original occurrence. This is especially true of the more ephemeral site types. Thus, the best approach to achieving this aspect of the preservation goal is to preserve as large a sample of the regional prehistory as possible to provide for the future. At Fort Irwin, the preservation goal should be informed by the priority lists developed as a result of fulfilling Goal 3 requirements.

Fourth, the development of new methods and techniques of scientific inquiry argues, as well, for the preservation of a representative site sample. For example, techniques for absolute dating of archeological sites through radiocarbon dating were developed following World War II, while accurate obsidian hydration dating is still in a developmental

stage. Studies seeking to develop further absolute dating methods and techniques are underway and show promise of success. Information which cannot be recovered by today's methods and techniques may be recovered and utilized in the future. Therefore, where sites cannot be preserved intact and impacts must be mitigated through data recovery, it is important that appropriate measures be taken to preserve substantial witness deposits whenever possible for future study.

When preservation has been determined to be a feasible treatment for an archeological site, district or area, appropriate measures to ensure the long-term physical protection of the information which the site contains must be decided upon and taken. First of all, these measures must be effective. For example, a site may be fenced and signed to prevent vehicular access and related impacts, but may be subject to impacts from live-fire ordinance or troop/personnel foot access/traffic. Clearly, fencing and signing alone are not an effective protective measure in this case and further measures must be taken to ensure preservation of the data content of the site. In another case, a site may be effectively protected from direct military impacts but susceptible to either secondary impacts or environmental degradation resulting from military impacts. The construction of roads, targets or other environmentally destructive military projects may cause impacts which in turn contribute to the destruction of a protected archeological site through newly created erosional channels and surfaces.

In addition, to assure the effective preservation of the scientific information contained in an archeological site, the protective measures must be compatible with the NTC training mission objectives. While fencing and signing of archeological sites may be an effective preservation measure in areas where all military traffic is restricted to already existing roads and trails, it would be inappropriate, and probably ineffective, in an open maneuver area and would place undesirable restraints upon the training program.

Preservation measures should, thus, be decided upon and undertaken based upon the particular needs for the long-term physical protection of the data categories contained in the site and the land-use to which the site area will be subjected. Those sites, districts and areas which make up the representative site sample and are effectively preserved and protected should be nominated to the National Register of Historic Places by the appropriate U.S. Army personnel.

When a preservation program has been decided upon and undertaken, monitoring by NTC personnel to ensure the effective long-term protection of the scientific information

in the site should begin immediately and continue on a regularly scheduled basis. If the monitoring program should discover that the preservation measures at a particular site, district, or area are ineffective, additional protective measures must be undertaken or the information content of the site must be recovered through mitigation of adverse effects (data recovery) (See Chapter IV, "NTC Monitoring Procedures").

Procedures to Achieve Goal 4

1. Identify those sites, districts and areas which are representative of the Early, Middle and Late Times settlement/subsistence systems and which can be effectively preserved.
2. Develop and undertake effective measures to ensure the protection/preservation of the scientific information contained in the site, district or area.
3. Nominate the sites, districts or areas of the preservation sample to the National Register of Historic Places.
4. Develop and undertake a regular monitoring program to ensure the continued effective protection of the preservation sample (See Chapter IV, NTC Monitoring Procedures).

Goal 5 - Mitigate impacts - recover scientific information from cultural resources as necessary to support or reject the models and hypotheses identified in the Research Overview, Volume II.

When archeological sites that are considered eligible or have been placed on the National Register of Historic Places cannot be effectively preserved and scientific information will be lost as a result of NTC land-use, the anticipated impacts may be mitigated beforehand through data recovery. Of the two possible treatments, preservation or data recovery, the latter is the less desirable in terms of its greater cost in time, dollars and level of effort. In addition, data recovery impacts the resource which is better left for study by future scholars who may benefit from technological advances.

Once the treatment decision has been made that data recovery will be necessary, the site, area or district to be studied must be secured from impacts until the field phase of the data recovery process is completed. Fencing and signing has proved to be an effective temporary protective measure in some cases by diverting vehicles around the site. In other cases, however, the fencing has not been an effective measure. Fences have been driven over and/or purposefully removed and the archeological site destroyed or seriously damaged by training activities. At times, fences have remained intact while foot soldiers have camped on the sites and illegally collected artifacts and otherwise disturbed the site. In nearly all cases, the fences have resulted in some restrictions on the freedom of movement in the NTC training areas. The temporary protective measure should, therefore, be effective and should be removed promptly following the field phase of data recovery.

The data recovery process begins with the development of a technical proposal by the archeological (Research) personnel including a site-specific research design which identifies the data categories to be recovered and the pertinent aspects of the models and hypotheses of the Research Overview which the recovered information will address. Analyses of recovered materials and reporting requirements are identified. A formal budget and cost proposal is prepared for the data recovery which includes estimates of personnel, levels of effort, scheduling and funding needs.

Following the acceptance of the technical and cost proposals, the field phase of data recovery begins with the recovery of data through controlled excavation or other collection techniques. Once the data has been removed from

the field, analyses of recovered data categories are undertaken.

Upon completion of the analyses, a technical report of the data recovery is written which incorporates the research design, describes the recovered data, presents the results of the analyses and interprets the information which was recovered in the light of the research design.

The technical report is written for a scholarly audience and utilizes highly technical, scientific terminology. It is often desirable to produce a popular report written specifically for the lay public. A popular report not only satisfies the requirement of informing the public on how and where some of their tax dollars have been spent, but is a very effective and positive public relations tool for the agencies involved. Such reports often find wide circulation among local amateur groups and enjoy self-supporting sales to tourists through local museums.

Following the production of technical and popular reports of the data recovery, all records and collections resulting from the project must be prepared for permanent curation and placed in a selected repository where they are curated and made available for scholarly research upon request (See Chapter I, pp. 1-27, 28, 29).

With the transfer of the data and collections to the curation facility, the data recovery process is completed. Should the curation facility fail to maintain its standards, however, or to continue operation, the U.S. Army would retain responsibility to remove all records and collections to another acceptable curation facility.

The data recovery process is, unfortunately, highly technical, time consuming and costly. It is, however, one of a very few ways by which scientific information can be collected and used to increase our understanding of prehistoric human life.

Archeological sites are nonreplicable and nonrenewable resources. That portion of a site which is excavated or collected during the field phase of data recovery process is destroyed. It is of utmost importance, therefore, that the analyses, reporting and curation of records and collections phases of the process be completed promptly and made available to both scholarly and popular groups. Data recovery compliance cannot be considered complete until the entire process is completed.

Procedures to Achieve Goal 5

NOTE: In following the procedures below, personnel responsible for the performance of specific procedural tasks have been identified: the archeological (research) personnel - designated cultural resource managers and contractors; the NTC (management) personnel; and the State Historic Preservation Officer.

NTC (MANAGEMENT) PERSONNEL

1. Provide effective temporary protective measures for sites, districts or areas prior to and during the field phase of the data recovery process.

ARCHEOLOGICAL (RESEARCH) PERSONNEL - DESIGNATED CULTURAL RESOURCE MANAGERS

2. Prepare RFP and budget estimates for necessary mitigation.

ARCHEOLOGICAL (RESEARCH) PERSONNEL - CONTRACTORS

3. Prepare professionally adequate technical and cost proposals which include at a minimum: a research design which identifies the specific research to be undertaken and the relevant models and hypotheses of the Research Overview; the data categories, analyses, methods and techniques which will be addressed or utilized; report requirements; the level of effort; proposed schedule; and estimated budget.

ARCHEOLOGICAL (RESEARCH) PERSONNEL - CULTURAL RESOURCE MANAGERS

4. Complete field phase of the data recovery process and remove any temporary protective measures as necessary.
5. Complete remaining phases of data recovery process promptly.
5. Disseminate scientific information (recovered data) through the technical report to NTC, SHPO, ACHP, NPS, the regional Information Center (San Bernardino County Museum) and other regional Federal agency and university libraries (See Chapter IV, Distribution Lists).
6. Make scientific information available to the general public through a popular report or other satisfactory means.

8. Apply the information obtained through the data recovery process to update and revise as necessary the pertinent sections of the Research Overview. Provide all updated data and revisions immediately to the appropriate NTC personnel.
9. Complete the active data recovery process by preparing all records and collections for permanent curation and placing them in the selected facility as soon as they are no longer required to be held in study status.

NTC (MANAGEMENT) PERSONNEL

10. Monitor the condition of the curated records and collections in the selected facility in accordance with the Secretary of the Interior's Standards and Guidelines for Curation 36 CFR Part 79 (in preparation).

CHAPTER III - VOLUME I

INTRODUCTION

The Memorandum of Agreement between the Advisory Council on Historic Preservation, the State Historic Preservation Officer and the NTC stipulates that the FIHPP be included as an element in the installation Master Plan in order to guide NTC and training exercise planning (Stipulation II, Memorandum of Agreement, See Appendix A).

In order for the FIHPP to provide guidance for successful planning, it is essential to identify the land-uses which will affect specific areas of the Fort. The many land-uses will result in varying types and levels of ground disturbance which could damage or destroy archeological sites and result in a loss of irreplaceable scientific information.

To preclude this loss, it is necessary to determine where, when, how and by whom ground disturbing activities will occur and, as a result, to plan the archeological program to be responsive to both compliance with the law and to the land-use needs of the NTC mission. The key to the successful accomplishment of both of these goals is in the early identification of areas where ground-disturbing activities could impact archeological properties, so that presence or absence of sites can be determined by archeological survey/evaluation. Should archeological sites be found to be present, treatment decisions can be reached and the appropriate measures undertaken prior to the occurrence of the destructive activity.

At Fort Irwin, the training rotation schedule and the nature of the training exercises make such pre-impact projects virtually unattainable within the exercise ranges. The low availability of range access and funding requirements for archeological projects place additional constraints on the early planning process, especially in view of the large areas of the Fort which are subject to severe ground disturbing activities.

Clearly, it is necessary to develop planning procedures which are responsive to the unique training conditions and schedules at the Fort so that a responsible historic preservation program can be assured without imposing unacceptable restrictions upon the training program.

Land-use priority information is required in determining where archeological survey/evaluation is required and in making decisions for treatment of archeological properties

(Chapter II, Goals 3, 4, and 5). These decisions can affect the performance of NTC mission activities; therefore, the timely provision of complete land-use information by NTC Elements and occasional land-users is essential to assure the smooth operation of NTC activities.

DEH - ROLE IN FIHPP

Although the installation Commander is ultimately responsible for the development of the FIHPP and for providing the necessary funding, facilities and resources to implement the Plan, DEH is the NTC Element responsible for the management of the FIHPP (AR 420-40, 1-4 e. and f.) and for the activities required in this role.

DEH provides for the initial compilation of land-use information and the subsequent integration and dissemination of the information for use in coordinating military training, construction and other activities with the archeological program. Within DEH, the Staff Archeologist organizes and coordinates the FIHPP as follows (Cassidy p.c.):

1. Contributes up-to-date historic preservation information for master planning including annual review of Master Plan. Assists in the preparation of master planning documents as required by AR 420-40.
2. Reviews individual site development plans or minor projects demanding immediate action to assure that the FIHPP procedures have been followed.
3. Provides relevant historic preservation information early in the planning process for military construction programs and assures that the FIHPP procedures have been followed.
4. Coordinates and assists the appropriate NTC Elements in the placement of permanent and temporary protective measures to assure the physical security of archeological sites determined eligible for inclusion in the National Register of Historic Places. (Protective measures may include, but are not limited to, fencing, sign and berm construction and electronic surveillance through Operations Center computer graphics system.)
5. Develops site-specific monitoring plans for temporary and long-term protected archeological sites, districts and areas. Develops periodic monitoring schedule for

military training activities. Monitors sites and activities according to plans and schedules.

6. Presents an annual estimated budget for the implementation of the FIHPP in the next fiscal year. Provides quarterly budget estimates which identify specific funding needs within the next quarter. Provides budget estimates when requested as a result of emergency projects or situations.
7. Develops work schedules for in-house staff or contract personnel with the appropriate NTC elements to assure their physical safety, and to coordinate field access for personnel with rotational training.
8. Informs the Command of potential conflicts between the implementation of the FIHPP and the successful accomplishment of the NTC mission.
9. Acts as liaison between NTC Elements and archeological research personnel as needed. Schedules and arranges meetings between military and archeological research/management personnel as needed or when requested.
10. Develops Standard Operating Procedure (SOP) guidelines for appropriate NTC Elements and other users of installation lands (including, but not limited to, NTC regulations and personnel memos, and SOP's for DEH, DPTMSEC, Operations Group, Range Control, Reserve and National Guard components, Joint Training Exercise Command and Corps of Engineers Districts as appropriate). SOP's will establish procedures to assure that all users of NTC lands are in compliance with Federal historic preservation laws and regulations through the implementation of the FIHPP.

The DEH is the initial point of contact for all NTC Elements and all other land users who require planning level information on historic preservation requirements for prospective activities.

LAND-USE PRIORITIES

The exigencies of time, funding levels and program needs preclude the immediate accomplishment of the FIHPP goals. It is necessary, therefore, to develop land-use priorities to be utilized in conjunction with previously identified archeological research priorities (Chapter II, Goal 3).

Access to ranges and levels of effort and funding for archeological projects are then allocated on the basis of NTC Element land-use and research priority needs.

Land-use priorities are assigned by each NTC Element on the basis of the level of impact (ground disturbance), which may be expected to result from particular land-use activities. The following land-use priorities have been identified for use in the FIHPP.

Priority 1 - High levels of ground disturbance. Impacts are severe and repetitive usually resulting from training exercises and their support groups. Engagement areas, transportation corridors, target areas, heavy live fire areas and bivouac areas are subject to high levels of impact, as are areas where large numbers of personnel or their dependents (with unrestricted access) make the likelihood of illegal collection high. Flat land, gentle slopes and drainages within maneuver areas will generally be identified as Priority Level 1 areas due to their trafficability and the likelihood of resultant ground disturbance.

Priority 2 - Medium levels of ground disturbance. Impacts are less severe and repetitive than in Priority 1 and tend to be more restricted areally. Administrative traffic and jeep and foot traffic are often restricted to existing roads and trails. These areas are accessible to training groups; however, they are not highly and intensively utilized. Ground disturbance may occur as a result of land-use activities but usually will be attributable to cumulative impacts within a small or restricted rather than a widespread area.

Priority 3 - Low or no levels of ground disturbance. Impacts are infrequent and tend to result from single occurrence events which cause minimal ground disturbance. These areas are not utilized in the training program and are generally visited infrequently or on an informal basis by light jeep or foot traffic which utilizes existing roads and trails. Deviations from this pattern will not be of a nature that results in the disturbance or destruction of archeological sites. Off Limits Areas around springs, steep rugged terrain and other areas which are not utilized by the NTC programs and their support activities, are candidates for Priority 3 designation.

LIVE FIRE IMPACT ZONES

It is recognized that an unknown, high level of destructive impacts are damaging an unknown number of archeological sites within the existing designated live fire impact zones (Lucky Fuse, Nelson, Gary Owens, Langford and others) to an unknown degree. The physical safety considerations of both military and historic preservation personnel preclude any inventory or mitigative actions within these zones prior to an effective clearance of ordnance by EOD units.

NTC ELEMENT LAND-USE PRIORITIES

As land-use varies dramatically between the NTC Elements, it is essential that each Element identify its specific land-use priorities. Identification of NTC land-use priorities will be required of DPTMSEC, Operations Group, Range Control, and DEH. Occasional users of NTC lands - Reserve Components, National Guard and Joint Training Exercise Command - will also be required to provide land-use priorities to the appropriate NTC Element early in their planning processes.

OTHER LAND-USE ACTIVITIES

Priorities must be identified by DEH for the effects of land-use resulting from on-base housing of NTC personnel and their dependents. Most Priority 1 impact levels will probably result from construction projects; however, severe impacts can result from illegal collecting. The proximity of large numbers of people to archeological sites usually necessitates Priority 1 designation for the area.

Recreational land-use is probably second only to tracked vehicle training exercises in causing impacts, especially where off-road vehicles are utilized. In addition to the ground disturbance aspect, these vehicles provide access to isolated areas for illegal artifact collectors. Uncontrolled collection of rock and mineral specimens and paleontological materials can also cause damage to archeological sites and loss of information, however unintentionally. Construction projects, such as golf courses, swimming pools, playground and park areas, and roads and trails are also Priority 1 designates.

It is important to consider cumulative effects of the specific land-uses when identifying priorities connected with housing and recreational use. Priority 2 or 3 impact levels could, with repetition, escalate rapidly to Priority 1.

LAND-USE PRIORITY IDENTIFICATION

In order to ensure that the Fort Irwin Archeological Project is conducted in such a manner as to support NTC mission activities, each NTC Element must provide accurate, up-to-date land-use priority information to DEH. DPTMSEC, Operations Group, Range Control, DEH, Reserve and National guard Components and Joint Training Exercise Command will identify the land-use priorities for their Element and indicate the areas on a 1:100,000 m General Site Plan map. These maps are thereafter reviewed by the NTC Element on a quarterly (FY) basis to identify any changes in land-use priorities which are anticipated by the Element. All maps and updated maps are provided to DEH for coordination and compilation of a Master Land-Use Priority Map (See Appendices, Map 4).

NTC Elements are also responsible for providing the following information to DEH.

DPTMSEC

1. All rotational training schedules including any rotational substitutions or minirotations. Training areas must be defined. (This information is essential in scheduling access to field areas for archeological projects.)
2. New range construction plans and proposed construction schedules early in the planning process to allow sufficient lead time for required archeological investigations, if they are necessary.

Range Control

1. Reports on the security and condition of protective preservation measures of both temporarily and long-term protected archeological sites, districts or areas.
2. Infractions involving impacts to protective measures or the archeological sites which they protect. (Infractions must be reported to DEH immediately following their discovery.)

Operations Group

1. Infractions by rotational groups involving Off-Limits areas, protected areas or archeological sites within protected areas. Infractions

must be reported to DEH immediately following their discovery.

2. All placement and/or movement of targets or objective areas.

Other occasional land-users must obtain clearance for their activities through the DEH to assure that the FIHPP requirements have been considered and met. They are also responsible for providing the following information to DEH.

Reserve Components and National Guard

1. Schedules for monthly or annual training of units.
2. Areas to be utilized in training.
3. Changes in scheduling or training activities allowing sufficient lead time for required archeological investigations, if they are necessary.

Joint Training Exercise Command

1. Schedules and anticipated land-use priority areas early in the planning process to allow sufficient lead time for archeological investigations, if they are necessary. (A minimum of six months lead time is necessary.)

NTC LAND-USE/RESEARCH PROJECT COORDINATION

When land-use priorities have been compiled, they must be integrated with the research project priorities (See Chapter II, Goal 3, Procedures 3-6). It is essential to the process that a single Land-Use Priority List is developed by the appropriate NTC personnel and that the List takes the land-use priorities of each Research/Management Area into consideration. When the Land-Use Priority List has been integrated with the Research Project Priority List and treatment decisions for archeological properties have been made, a single, combined Archeological Project Priority List is prepared and funding and access coordination is provided by the appropriate NTC Elements. At this time, DEH will provide the following information to the NTC Elements and occasional land users.

DPTMSEC

1. Training maps and/or overlays with locations of all protected and Off-Limits areas.
2. Schedules for field access for archeological projects.

Range Control

1. Schedules for field access for archeological projects.

NOTE: When field access has been scheduled for archeological projects as approved by DPTMSEC, the project schedule is the highest priority land-use and must be considered before scheduling other NTC land-uses.

2. Maps and/or overlays with locations of all protected and Off-Limits areas.

NOTE: Protected and Off-Limits areas must be considered prior to assigning land-use areas for NTC activities.

Operations Group

Maps and/or overlays with locations of all protected and Off-Limits areas. Protected area locations for inclusion in electronic surveillance/computer graphics system.

Reserve Components and National Guard

1. Maps and/or overlays with locations of all protected and Off-Limits areas.
2. Briefings and/or training aids to make users aware of FIHPP requirements and the consequences of infractions (NTC Regulation 200-1).

Joint Training Exercises

1. Maps and/or overlays with locations of all protected and Off-Limits areas.
2. Briefings and/or training aids to ensure that player units respect protected and Off-Limits areas and are aware of the consequences of infractions (NTC Regulation 200-1).

All Element Land-Use Priorities are coordinated with the NTC Master Plan as are all Research Project Priorities through the DEH in the role of FIHPP coordinator. When the Archeological Project Priority List has been compiled and the projects funded and access scheduled, it is essential that all NTC Elements and occasional land-users fulfill the requirements of the FIHPP and the SOP's to assure the successful integration of the NTC's historic preservation management responsibilities with the training mission.

CHAPTER IV - VOLUME I

PROCEDURES AND GUIDELINES

To assure the successful implementation of the FIHPP, the following recommended procedures and guidelines are provided.

REVIEW AND REVISION OF FIHPP

To provide responsible, effective guidelines for the management of cultural resources, the Research Overview and Management Plan volumes of the FIHPP must be reviewed and revised by responsible personnel. The schedule presented in Table 4.1 for review/revision is suggested.

All reviews and proposed revisions to the FIHPP will be reported and provided in draft form to the DEH who will, when necessary, consult with command channels concerning the revisions. DEH will provide copies of the proposed revisions to the State Historic Preservation Officer and the Advisory Council on Historic Preservation for an opportunity to review and to provide written objections to the revisions. If there are objections, the DEH must provide for consultation with the SHPO and the Council to resolve the objections (Stipulation IV.B. MOA; See Appendix B). Following the resolution of the objections, the revisions and comments are distributed by the DEH to HQ FORSCOM:

James E. Cobb, Ph.D.
Office, Deputy Chief of Staff
Engineer, Plans Branch
Fort McPherson, Georgia 30330-6000

TABLE 4.1 SCHEDULE FOR REVIEW/REVISION OF THE FIHPP

<u>Section</u>	<u>Review and Revise</u>	<u>Responsible Personnel</u>
<u>Introduction</u> (Chapter 1)	Following any decision which will alter planned land use; or, at least once every four years.	Director of Engineering and Housing (DEH)
<u>Research Orientations</u> (Chapter 2)	Following each major survey/evaluation and data recovery project; or at least once a year, prior to the close of the FY.	Principal Investigator
<u>Research Program</u> (Chapter 3)	Following each major survey/evaluation and data recovery project ; or at least once a year, prior to the close of the FY.	Principal Investigator
<u>Management Guidelines</u> (Chapter 4)	At least once a year, prior to the close of the FY.	DEH/and or Corps of Engineers
<u>Resource/ Management File Maps and Site Forms</u>	Ongoing (reflects current status of all cultural resources and management efforts)	DEH/COE/ Principal Investigator
FIHPP	At least once every four years, or more often if necessary in consultation with ACHP and command channels (AR 420-40)	DEH

QUARTERLY AND ANNUAL REPORTS

THE QUARTERLY REPORT

The Quarterly Report (FY) is produced by the agency providing contract administration and management services for Fort Irwin (currently the Corps of Engineers, Los Angeles District). The purpose of the Report is to provide up-to-date information on the progress and expenditures of the Project and under the individual contracts to the appropriate NTC personnel, the State Historic Preservation Officer and the Advisory Council on Historic Preservation. Essential aspects of the Quarterly Report are 1) the Status of COE/NTC Reimbursable Accounts, 2) Research Priorities for Inventory, Data Recovery or Long-term Preservation (by Research/Management Area), and 3) the Contract Summary (See Appendix E for sample Quarterly Report).

The Status of Reimbursable Accounts includes information on the amount and funding source, administrative costs, contract amounts, total obligations and the unobligated balance of each funding transfer. Project totals are maintained for these categories and the percentage of administrative overhead costs are calculated against the total obligations. In this way, full accountability of the transferred funds is maintained.

Priorities for inventory, data recovery or long-term preservation are summarized for each Research/Management Area in the categories of survey/evaluation, evaluation, data recovery and long-term preservation. The individual project tasks are assigned priorities in terms of their probable research potential (See Chapter II, Goal 3). Those tasks which are selected for priority performance on the Archeological Project Priority List are identified by asterisks to provide an easy reference for scheduled project performance within each Research/Management Area.

Information on the conduct of individual contracts/projects is provided in the Contract Summary as follows: the project name and contract number; the source and amount of funding; the project status to date (percentile); the specific tasks under the contract; the status: completed; the status: incomplete; and, the citation for the final report of the project (when complete).

The Quarterly Report is produced within one month following the end of each fiscal year quarter. A copy of each Quarterly Report is sent to:

State Historic Preservation Officer
P.O. Box 2390
Sacramento, California 95811

and Advisory Council on Historic Preservation
Western Division of Project Review
730 Simms St., Room 450
Golden, Colorado 80401

and Dr. Constance W. Ramirez
HQ, DA
ATTN: DAEN-MPO-B
Washington, D. C. 20314

and HQ FORSCOM
AFEN-PDP/Jim Cobb
Fort McPherson, Georgia 30330-6000

Copies should also be prepared for distribution as desired at Fort Irwin through the DEH.

THE ANNUAL REPORT

The Annual Report summarizes the Quarterly reports and, in addition, contains a narrative summary of the conduct of the Fort Irwin Archeological Project for the past Fiscal Year. The Annual Report should be prepared in sufficient detail to fulfill reporting requirements of the Programmatic Memorandum of Agreement (as amended) between the Council and the SHPO. The narrative should include: accomplishments in terms of identified Project Priorities; unaccomplished Project Priorities; problems which resulted in unaccomplished Project Priorities and recommendations for the future conduct of the Project.

The Annual Report should be prepared and distributed with the Monitoring Annual Report to the Council, SHPO, HQ DA and the DEH prior to the November meeting with the SHPO.

NTC MONITORING PROCEDURES AND REPORTS

A responsible monitoring program is essential to the realization of Goals 4 and 5, Chapter II, and to the successful management of all cultural resources on Fort Irwin, regardless of location. The continual use of large areas of the Fort by rotating training units unfamiliar with the terrain places unique constraints upon effective management of cultural resources.

To ensure that the land-use and treatment decisions are appropriate, and effective, a site/area specific monitoring plan must be maintained on a strict periodic schedule. The plan must also provide regular feedback to the appropriate NTC personnel.

Monitoring plans and schedules should be based upon the nature of the site/area to be protected (research aspect), the possible impacts which the site could sustain if unprotected (land-use aspect), and the type of protection (treatment aspect) which has been selected as appropriate. These three aspects will all contribute to the development of the site/area specific monitoring plan. For example, a very large, complex site with high research values may be located in a Priority 1 land-use area. If a treatment decision is made for long-term preservation, the monitoring plan and schedule would require frequent periodic visits to assure compliance with the selected preservation plan.

The treatment aspect, with regard to the monitoring, is particularly influential. Basically, there are three treatments each of which will require a slightly different monitoring approach: 1) temporarily protected archeological sites 2) long-term protected archeological sites 3) archeological sites in some current stage of survey/evaluation or data recovery. The temporarily protected sites will probably have to be monitored more often than long-term protected sites, as usually the protective measures will be minimal (commonly fencing with single strand wire) and the site will be located in a Priority 1 or 2 land-use area.

Sites which are currently undergoing survey/evaluation or data recovery procedures are exceptionally vulnerable to disturbance due to their obvious location (where archeological crews are working) and the subsequent relative ease of illegal collecting. The sites are also extremely vulnerable to physical impacts as the deposits are open and exposed to both human and natural agents. In addition, large, deep areal exposures and open trenches often associated with data recovery can pose a safety problem for training personnel, particularly during night maneuvers. It is necessary,

therefore, to keep monitoring/reporting abreast of all survey/evaluation and data recovery field efforts. This requires a high frequency monitoring schedule and plan which includes a concomitant high level of coordination with NTC training personnel.

Long-term protected sites should have well-conceived, effective protective measures. Their locations will be better known, at least by Fort Irwin-based personnel. While this may result in a lower chance of training impacts, it can also result in illegal collection due to well-known site locations. Monitoring plans and schedules for long-term protected sites should also provide for identifying potential site deterioration and subsequent loss of data from natural causes.

New construction projects will require individual monitoring plans based upon the likelihood of damage to known or unknown archeological sites in the project area. All proposed construction sites should be surveyed and discovered sites evaluated and, if necessary, the data recovered prior to the beginning of ground disturbing activities. In project areas where a high site density has been identified, project monitoring may be necessary to prevent impacts to unknown subsurface archeological properties. Monitoring is also indicated where known archeological sites are in the project area and could be impacted inadvertently during construction. In this case the monitoring plan would provide for on-the-job supervision on an as needed basis.

The site-specific monitoring plans should be developed by both archeologists and NTC personnel and should clearly identify the nature of all protective measures to be utilized and the schedule of monitoring inspections to be followed. The Staff Archeologist will undertake the actual monitoring duties. As a part of these duties, a Monitoring Report Form (Figure 4.1, p. 4-8) will be completed and photographs will be taken as necessary at each specific site/area. (In order to undertake the monitoring inspections and reporting requirements, a 4-wheel-drive vehicle and a camera is essential.) The Report Forms should be filed in a separate folder with each site/area specific monitoring plan.

If the monitoring inspection identifies protective measures which are not effective or impacts to the archeological sites (natural or land-use), a monitoring report documenting the problem will be prepared by the Staff Archeologist and submitted to the DEH together with the Monitoring Report Form (See p. 4-8). This will initiate the examination of the treatment decision (Chapter II, Goals 3 and 4) and may

result in either a change in treatment status or stronger, effective preservation measures.

A yearly summary of the Monitoring Program will be prepared by the Staff Archeologist and submitted to the DEH.

Military Police and other NTC personnel who perform security and guard functions in the Ranges and less utilized, more remote areas of the Fort will be instructed by the Staff Archeologist in monitoring techniques for archeological sites. They will then be expected to report problems with protective measures and/or impacts to archeological sites to the Staff Archeologist for investigation and subsequent action.

MONITORING REPORT

LOCATION (UTM): _____ SITE NO.: _____

RESEARCH/MANAGEMENT AREA _____

TREATMENT STATUS: _____ PERIOD OF INSPECTION: _____

PERMANENT PROTECTION _____

TEMPORARY PROTECTION _____

CURRENT PROJECT: ARCHEOLOGY _____ CONSTRUCTION _____

PROTECTIVE MEASURES: SECURE _____ NOT SECURE _____ DATE: _____

IF NOT SECURE, COMMENTS:

REPORTED TO: _____ DATE: _____

SITE STATUS: NO IMPACTS _____ NEW IMPACTS _____ DATE: _____

IF NEW IMPACTS, COMMENTS:

REPORTED TO: _____ DATE: _____

INSPECTED BY: _____ DATE OF LAST PREVIOUS INSPECTION: _____

PHOTOGRAPHS: YES _____ NO _____ DATE: _____

ROLL: _____ FRAME _____

DISPOSITION OF HUMAN REMAINS

In the course of the conduct of the Fort Irwin Archeological Project, it is probable that historic or prehistoric archeological human remains will be found. Human remains have already been discovered as a result of Project investigations and to date consist of historic interments and one prehistoric cremation. While such discoveries are not common, they may be anticipated on an area as large as Fort Irwin.

The disposition of archeologically discovered human remains is of concern to the scientific community and to Native Americans and is a potential source of conflict between these groups. It is recommended, therefore, that a clear policy on the disposition of human remains be adopted prior to the actual discovery of the remains.

The Fort Irwin Archeological Project personnel have utilized the Department of Interior "Guidelines for the Disposition of Archeological and Historical Human Remains," for policy guidance in the absence of a Department of Defense directive. The Department of the Interior "White Paper - Disposition of Human Remains," which includes "Appendix I - Relevant Portions of Legislation Bearing on the Issue of the Disposition of Human Remains," and "Appendix II - Guidelines for the Disposition of Archeological and Historical Human Remains," is included in Appendix A, Volume III.

It should be noted that although existing Federal legislation and regulations consider human remains to be archeological specimens, this interpretation is controversial and is not accepted by all members of Native American communities. Some Native Americans consider all human remains to be of the highest religious significance and consider exposure, disturbance or removal of the remains to be a sacrilege.

Should the discovery of human remains result from the investigations of the Fort Irwin Archeological Project, the relevant Native American tribal group should be notified immediately. This notification is in addition to the notification to Indian tribes required under the Uniform Regulations for the Protection of Archeological Resources, 32 Part 296.7. If desired by the Native Americans, consultation may be appropriate with their representatives and research and NTC personnel in order to arrive at a mutually satisfactory decision with regard to the disposition of the remains.

Procedures for the Disposition of Human Remains

ARCHEOLOGICAL (RESEARCH) PERSONNEL

1. Upon the discovery of human remains as a result of Project investigations, immediately stop all work in the area which could disturb or destroy the remains and provide for temporary protection of the remains.
2. Immediately notify the Staff Archeologist and the DEH that human remains have been discovered. Provide the location of the remains and any pertinent information about them (inhumation, cremation, susceptibility to disturbance and so on) which could be of importance to the NTC in notifying the appropriate Native American groups.

NTC (MANAGEMENT) PERSONNEL

3. Notify Native American groups who can demonstrate direct kinship with the remains or, if this is not possible, who may have an interest in the disposition of the remains based upon a professional determination of general cultural affinity (See "Disposition of Human Remains - White Paper", Appendix A).

RESEARCH, MANAGEMENT AND NATIVE AMERICAN PERSONNEL

4. If consultation on the disposition of human remains is requested by a Native American group, Research or Management personnel, such consultation should be held prior to any disturbance to the remains. Should the consulting parties be unable to reach a mutually acceptable agreement on the disposition of the remains, the Departmental Consulting Archeologist, Department of the Interior, and the appropriate Department of Defense personnel may be consulted.

NOTE:

The disposition of human remains is an area of great concern to many groups of Native Americans residing in the State of California.

Native American groups with known affinities to the Fort Irwin area:

Chairman
Colorado River Indian Tribes
Route 1, Box 23-B
Parker, Arizona 85344
(602) 669-9211

Chairman
Fort Mojave Indian Tribe
Box 888
Needles, California 92363
619 326-4591

Chairman
Chemehuevi Tribal Offices
1976 Chemehuevi Valley
Havasupai Lake, California 92363
(619) 858-4531

PREPARATION OF ARCHEOLOGICAL PROJECT PRIORITY ESTIMATES

ARCHEOLOGICAL (RESEARCH) PERSONNEL

Archeological Project Priority Estimates are prepared by the archeological (research) personnel - designated cultural resource managers and must include budget, performance schedule and level of effort estimates for each of the ten projects selected for performance (See Chapter II, p. 2-20, 21). The Research Project Priority Estimate Form, Figure 4-2, should be completed and, for a field project, a 1:50,000 m map of the project area that shows any temporary protective fences should be attached to the form.

The estimates should be prepared immediately following the annual June meetings of the State Historic Preservation Office, Research and NTC personnel and should be completed no later than the end of July. The completed estimates are forwarded to the DEH.

NTC (MANAGEMENT) PERSONNEL

The DEH is the NTC Element responsible for providing the necessary funding, facilities and resources to implement the FIHPP (See AR 420-40, 1-4e. and f.; also Chapter III, p. 3-3). In this role, the DEH and/or the Staff Archeologist will obtain the necessary funding and coordinate the calendar and access scheduling for the performance of archeological projects in order of priority.

As soon as funding and scheduling are completed, this information must be communicated to the Research personnel. The information should also be communicated to the State Historic Preservation Officer and the Advisory Council on Historic Preservation no later than the November meetings with their representatives.

Fort Irwin Archeological Project
RESEARCH PROJECT PRIORITY ESTIMATES

1. PROJECT NAME _____
2. RESEARCH MANAGEMENT AREA(S) _____
3. CURRENT STATUS _____
4. PROJECT DESCRIPTION (ATTACH MAP FOR FIELD PROJECTS):

NTC / RESEARCH
PRIORITY NOS.

DATE

5. PRIORITY JUSTIFICATION:

6. ESTIMATED TIME OF PERFORMANCE:

Field:

Laboratory:

Report Preparation:

Total:

Comments:

RESEARCH PROJECT PRIORITY ESTIMATES - Continued

7. ESTIMATED COSTS:

Basis of Estimate:

Field:

Analysis:

Report Preparation:

Total:

Comments:

ADDITIONAL INFORMATION:

Prepared by _____ Date _____

DISTRIBUTION LIST FOR TECHNICAL REPORTS

Updated: April 17, 1986

DISTRIBUTION LIST

LTC Andrew Brochu
DFAEN, Building 365
National Training Center
Fort Irwin, California 92310
(Attention: Walter Cassidy)
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